AMYRIS, INC.
Form 10-K/A
April 24, 2018

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K/A

Amendment No. 2

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2017

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from ____ to ____

Commission File Number: 001-34885

AMYRIS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**55-0856151**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

5885 Hollis Street, Suite 100, Emeryville, California 94608

(Address of principal executive offices and Zip Code)

(510) 450-0761

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Common Stock, $0.0001 par value per share	**The NASDAQ Stock Market LLC**
(Title of each class)	(Name of each exchange on which registered)

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company Emerging Growth Company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of the registrant’s common stock held by non-affiliates of the registrant as of June 30, 2017, the last business day of the registrant's most recently completed second fiscal quarter, was $50.9 million based upon the closing price of the registrant’s common stock reported for such date on the NASDAQ Global Select Market.

Number of shares of the registrant’s common stock outstanding as of April 16, 2018: 49,694,705

DOCUMENTS INCORPORATED BY REFERENCE

None.

EXPLANATORY NOTE

This Amendment No. 2 on Form 10-K/A (this "Amendment") amends the Annual Report on Form 10-K of Amyris, Inc. (the "Company") for the fiscal year ended December 31, 2017 (the "Form 10-K"), as filed with the Securities and Exchange Commission (the "SEC") on April 17, 2018 (the "Original Filing Date") and as previously amended by the Amendment No. 1 on Form 10-K/A filed with the SEC on April 18, 2018.

This Amendment is being filed solely to correct two discrete administrative errors in the content of the Report of Independent Registered Public Accounting Firm of PricewaterhouseCoopers LLP (the "PwC Report"), the Company's prior independent registered public accounting firm, contained in Part II, Item 8 of the Form 10-K. The PwC Report in the Form 10-K referenced the balance sheet of the Company at December 31, 2016 and December 31, 2015. Although PricewaterhouseCoopers LLP did audit the Company's financial position at December 31, 2015, such balance sheet was not required to be included, and was not included, in the Form 10-K. Accordingly, the PwC Report was amended to remove the extraneous reference. In addition, the PwC Report was updated to reference the reverse stock-split disclosed in Note 1 to the financial statements and the fact that the impact of the reverse stock-split on comparative periods was not audited by PricewaterhouseCoopers LLP.

No other changes have been made to the Form 10-K. This Amendment speaks as of the Original Filing Date and does not reflect events that may have occurred subsequent to the Original Filing Date, and, except as expressly set forth herein, does not modify or update in any way the disclosures made in the Form 10-K.

Pursuant to Rule 12b-15 promulgated under the Securities Exchange Act of 1934 (the "Exchange Act"), this Amendment sets forth the complete text of Part II, Item 8 of the Form 10-K as amended hereby. Part IV, Item 15 of this Amendment reflects a new consent of PricewaterhouseCoopers LLP as well as new certifications pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 and Section 906 of the Sarbanes-Oxley Act of 2002, each of which is attached hereto.

PART II

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

AMYRIS, INC.

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Report of Independent Registered Public Accounting Firm – KPMG LLP

To the Stockholders and Board of Directors of

Amyris, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of Amyris, Inc. and subsidiaries (the Company) as of December 31, 2017, the related consolidated statements of operations, comprehensive loss, stockholders' deficit and mezzanine equity, and cash flows for the year then ended, and the related notes and financial statement schedule (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017, and the results of its operations and its cash flows for the year then ended, in conformity with U.S. generally accepted accounting principles.

Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has suffered recurring losses from operations and has current debt service requirements that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit, we are required to obtain an

understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as the Company's auditor since 2017.

San Francisco, California

April 17, 2018

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Report of Independent Registered Public Accounting Firm – PricewaterhouseCoopers LLP

To the Board of Directors and Stockholders of Amyris, Inc.:

In our opinion, the consolidated balance sheet as of December 31, 2016 and the related consolidated statements of operations, of comprehensive loss, of stockholders' deficit and mezzanine equity and of cash flows for each of the two years in the period ended December 31, 2016, before the effects of the adjustments to retrospectively reflect the reverse stock-split described in Note 1, present fairly, in all material respects, the financial position of Amyris, Inc. and its subsidiaries as of December 31, 2016, and the results of their operations and their cash flows for each of the two years in the period ended December 31, 2016, in conformity with accounting principles generally accepted in the United States of America (the 2016 financial statements before the effects of the adjustments discussed in Note 1 are not presented herein). In addition, in our opinion, the financial statement schedule for each of the two years in the period ended December 31, 2016 presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements before the effects of the adjustments described above. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits. We conducted our audits, before the effects of the adjustments described above, of these financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

We were not engaged to audit, review, or apply any procedures to the adjustments to retrospectively reflect the reverse stock-split described in Note 1 and accordingly, we do not express an opinion or any other form of assurance about whether such adjustments are appropriate and have been properly applied. Those adjustments were audited by other auditors.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the 2016 financial statements, the Company has suffered recurring losses from operations and has a net stockholders' deficit that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ PricewaterhouseCoopers LLP

San Jose, California

April 17, 2017

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AMYRIS, INC.

CONSOLIDATED BALANCE SHEETS

December 31, **(In thousands, except shares and per share amounts)**	2017	2016
Assets		
Current assets:		
Cash and cash equivalents	$57,059	$27,150
Restricted cash	2,994	4,326
Short-term investments	—	1,374
Accounts receivable, net of allowance of $642 and $501, respectively	33,621	13,977
Inventories	5,408	6,213
Prepaid expenses and other current assets	5,525	6,083
Total current assets	104,607	59,123
Property, plant and equipment, net	13,892	53,735
Unbilled receivable	7,940	—
Restricted cash, noncurrent	959	957
Recoverable taxes from Brazilian government entities	1,445	13,723
Other assets	22,640	2,335
Total assets	$151,483	$129,873
Liabilities, Mezzanine Equity and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$15,921	$15,315
Accrued and other current liabilities	29,402	30,110
Deferred revenue	4,880	5,288
Debt, current portion	36,924	25,853
Related party debt, current portion	20,019	33,302
Total current liabilities	107,146	109,868
Long-term debt, net of current portion	61,893	128,744
Related party debt, net of current portion	46,541	39,144
Derivative liabilities	119,978	6,894
Other noncurrent liabilities	10,632	23,731
Total liabilities	346,190	308,381
Commitments and contingencies (Note 9)		
Mezzanine equity:		
Contingently redeemable common stock (Note 5)	5,000	5,000
Stockholders’ deficit:		
Preferred stock - $0.0001 par value, 5,000,000 shares authorized as of December 31, 2017 and 2016, and 22,171 and 0 shares issued and outstanding as of December 31, 2017 and December 31, 2016, respectively	—	—
Common stock - $0.0001 par value, 250,000,000 and 500,000,000 shares authorized as of December 31, 2017 and 2016, respectively; 45,637,433 and 18,273,921 shares issued and outstanding as of December 31, 2017 and December 31, 2016, respectively	5	2
Additional paid-in capital - common stock and other	1,048,274	990,895

Accumulated other comprehensive loss	(42,156)	(40,904)
Accumulated deficit	(1,206,767)	(1,134,438)
Total Amyris, Inc. stockholders' deficit	(200,644)	(184,445)
Noncontrolling interest	937	937
Total stockholders' deficit	(199,707)	(183,508)
Total liabilities, mezzanine equity and stockholders' deficit	$151,483	$129,873

See accompanying notes to consolidated financial statements.

AMYRIS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

Years Ended December 31, **(In thousands, except shares and per share amounts)**	2017	2016	2015
Revenue			
Renewable products (includes related party revenue of $1,291, $1,562 and $865, respectively)	$42,370	$25,510	$14,506
Licenses and royalties (includes related party revenue of $57,972, $0 and $0, respectively)	64,477	15,839	390
Grants and collaborations (includes related party revenue of $1,679, $0 and $0, respectively)	36,598	25,843	19,257
Total revenue	143,445	67,192	34,153
Cost and operating expenses			
Cost of products sold	62,713	56,678	37,374
Research and development	56,956	51,412	44,636
Sales, general and administrative	63,291	47,721	56,262
Impairment of property, plant and equipment	—	7,305	34,166
Withholding tax related to conversion of related party notes	—	—	4,723
Impairment of intangible assets	—	—	5,525
Total cost and operating expenses	182,960	163,116	182,686
Loss from operations	(39,515)	(95,924)	(148,533)
Other income (expense)			
Gain on divestiture	5,732	—	—
Interest expense	(34,032)	(37,629)	(78,854)
Gain (loss) from change in fair value of derivative instruments	(1,742)	41,355	16,287
Loss upon extinguishment of debt	(1,521)	(4,146)	(1,141)
Other expense, net	(956)	(437)	(1,159)
Total other expense, net	(32,519)	(857)	(64,867)
Loss before income taxes and loss from investments in affiliates	(72,034)	(96,781)	(213,400)
Provision for income taxes	(295)	(553)	(468)
Net loss before loss from investments in affiliates	(72,329)	(97,334)	(213,868)
Loss from investments in affiliates	—	—	(4,184)
Net loss	(72,329)	(97,334)	(218,052)
Net loss attributable to noncontrolling interest	—	—	100
Net loss attributable to Amyris, Inc.	(72,329)	(97,334)	(217,952)
Less deemed dividend on capital distribution to related parties	(8,648)	—	—
Less deemed dividend related to beneficial conversion feature on Series A preferred stock	(562)	—	—
Less deemed dividend related to beneficial conversion feature on Series B preferred stock	(634)	—	—
	(5,757)	—	—

Less deemed dividend related to beneficial conversion feature on Series D preferred stock			
Less cumulative dividends on Series A and Series B preferred stock	(5,439)	—	—
Net loss attributable to Amyris, Inc. common stockholders	$(93,369)	$(97,334)	$(217,952)
Net loss per share attributable to Amyris, Inc. common stockholders:			
Basic	$(2.89)	$(6.12)	$(26.20)
Diluted	$(2.89)	$(6.55)	$(26.20)
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock:			
Basic	32,253,570	15,896,014	8,464,106
Diluted	32,253,570	17,642,965	8,464,106

See accompanying notes to consolidated financial statements.

AMYRIS, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

Years Ended December 31, **(In thousands)**	2017	2016	2015
Comprehensive loss:			
Net loss	$(72,329)	$(97,334)	$(218,052)
Foreign currency translation adjustment, net of tax	(1,252)	6,294	(16,901)
Total comprehensive loss	(73,581)	(91,040)	(234,953)
Net loss attributable to noncontrolling interest	—	—	100
Foreign currency translation adjustment attributable to noncontrolling interest	—	—	(320)
Comprehensive loss attributable to Amyris, Inc.	$(73,581)	$(91,040)	$(235,173)

See accompanying notes to consolidated financial statements.

AMYRIS, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT AND MEZZANINE EQUITY

(In thousands, except number of shares)	Preferred Stock		Common Stock							
	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Noncontrolling Interest	Total Stockholders' Deficit
December 31, 2014	—	$—	5,281,459	$1	$724,676	$(29,977)	$(819,152)	$(611)	$(1
Issuance of common stock in private placement, net of issuance costs	—	—	1,068,377	—	24,626	—	—	—	24
Issuance of common stock upon conversion of debt	—	—	4,146,148	1	96,621	—	—	—	96
Issuance of warrants on conversion of debt	—	—	—	—	51,704	—	—	—	51
Issuance of common stock upon exercise of warrants	—	—	3,158,832	—	19,194	—	—	—	19
Issuance of common stock from restricted stock settlement	—	—	60,592	—	(333)	—	—	—	(3
Issuance of common stock upon ESPP purchase	—	—	25,727	—	595	—	—	—	59
Issuance of common stock upon exercise of stock options	—	—	884	—	18	—	—	—	18
Stock-based compensation	—	—	—	—	9,134	—	—	—	9,
Foreign currency translation adjustment	—	—	—	—	—	(17,221)	—	320	(1
Net loss	—	—	—	—	—	—	(217,952)	(100)	(2
December 31, 2015	—	$—	13,742,019	$2	$926,235	$(47,198)	$(1,037,104)	$(391)	$(1
Issuance of common stock upon conversion of debt	—	—	1,048,601	—	14,366	—	—	—	14
Issuance of common stock for settlement of debt principal payments	—	—	2,381,588	—	17,414	—	—	—	17
Issuance of common stock upon exercise of warrants	—	—	666,667	—	10,435	—	—	—	10
Issuance of common stock from restricted stock settlement	—	—	120,234	—	(254)	—	—	—	(2
Issuance of common stock upon ESPP purchase	—	—	22,405	—	180	—	—	—	18
Issuance of common stock upon exercise of stock options	—	—	9	—	—	—	—	—	—
Issuance of contingently redeemable common stock	—	—	292,398	—	—	—	—	—	—
	—	—	—	—	4,387	—	—	—	4,

Issuance of warrants with debt private placement and collaboration agreements								
Contribution upon restructuring of Total Amyris BioSolutions B.V.	—	—	—	4,252	—	—	—	4,
Acquisitions of noncontrolling interests	—	—	—	(2,508)	—	—	391	(2
Disposal of noncontrolling interest in Aprinnova LLC	—	—	—	9,063	—	—	937	10
Stock-based compensation	—	—	—	7,325	—	—	—	7,
Foreign currency translation adjustment	—	—	—	—	6,294	—	—	6,
Net loss	—	—	—	—	—	(97,334)	—	(9
December 31, 2016	—	$—	18,273,921	$2	$990,895	$(40,904)	$(1,134,438)	$937	$(1
Issuance of Series A preferred stock for cash, net of issuance costs of $562	22,140	—	—	—	—	—	—	—	—
Issuance of Series B preferred stock upon conversion of debt, net of issuance costs of $0	40,204	—	—	—	—	—	—	—	—
Issuance of Series B preferred stock for cash, net of issuance costs of $860	55,700	—	—	—	5,476	—	—	—	5,
Issuance of Series D preferred stock for cash, net of issuance costs of $176	12,958	—	—	—	6,197	—	—	—	6,
Issuance of common stock due to rounding from reverse stock split	—	—	6,473	—	—	—	—	—	—
Issuance of common stock for cash	—	—	2,826,711	—	5,527	—	—	—	5,
Issuance of common stock upon conversion of preferred stock	(108,831)	—	17,274,017	3	(1)	—	—	—	2
Issuance of common stock upon conversion of debt	—	—	2,257,786	—	6417,	—	—	—	6,
Issuance of common stock for settlement of debt principal payments	—	—	1,246,165	—	10,708	—	—	—	10
Issuance of common stock for settlement of debt interest payments	—	—	400,967	—	3,436	—	—	—	3,
Issuance of common stock upon exercise of warrants	—	—	3,148,097	—	9,557	—	—	—	9,
Issuance of common stock upon restricted stock settlement	—	—	156,104	—	(385)	—	—	—	(3
Issuance of common stock upon ESPP purchase	—	—	47,058	—	—	—	—	—	—
Issuance of common stock upon exercise of stock options	—	—	134	—	—	—	—	—	—
Beneficial conversion feature of Series A preferred stock	—	—	—	—	562	—	—	—	56
Deemed dividend on beneficial conversion feature of Series A preferred stock	—	—	—	—	(562)	—	—	—	(5
Beneficial conversion feature to related party of Series B preferred stock	—	—	—	—	634	—	—	—	63
Deemed dividend to related party on beneficial conversion feature of Series B preferred stock	—	—	—	—	(634)	—	—	—	(6
Beneficial conversion feature of Series D preferred stock	—	—	—	—	5,757	—	—	—	5,

Deemed dividend on beneficial conversion feature of Series D preferred stock	—	—	—	(5,757)	—	—	—	(5
Reclassification from mezzanine equity to permanent equity	—	—	—	12,830	—	—	—	12
Deemed dividend on capital distribution to related parties	—	—	—	(8,648)	—	—	—	(8
Stock-based compensation	—	—	—	6,265	—	—	—	6,
Foreign currency translation adjustment	—	—	—	—	(1,252)	—	—	(1
Net loss	—	—	—	—	—	(72,329)	—	(7
December 31, 2017	22,171	$—	45,637,433	$5	$1,048,274	$(42,156)	$(1,206,767)	$937	$(1

See accompanying notes to consolidated financial statements.

AMYRIS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

Years Ended December 31, **(In thousands)**	2017	2016	2015
Operating activities			
Net loss	$(72,329)	$(97,334)	$(218,052)
Adjustments to reconcile net loss to net cash used in operating activities:			
Gain on divestiture	(5,732)	—	—
Depreciation and amortization	11,358	11,374	12,920
Loss on impairment of property, plant and equipment	—	7,305	34,166
Impairment of intangible assets	—	—	5,525
Withholding tax related to conversion of related party notes	—	—	4,723
Loss from investments in affiliates	—	—	4,184
Loss (gain) on disposal of property, plant and equipment	142	(161)	154
Stock-based compensation	6,265	7,325	9,134
Amortization of debt discount	12,490	14,445	58,559
Loss upon extinguishment of debt	1,521	4,146	1,141
Receipt of noncash consideration in connection with license revenue	(8,046)	—	—
Receipt of equity in connection with collaboration arrangements revenue	(2,661)	—	—
Loss (gain) from change in fair value and extinguishment of derivative instruments	1,742	(41,355)	(16,287)
(Gain) loss on foreign currency exchange rates	(1,230)	557	1,328
Other non-cash expenses	—	442	(1,741)
Changes in assets and liabilities:			
Accounts receivable	(19,647)	(8,959)	4,271
Inventories	(3,126)	5,686	4,470
Prepaid expenses and other assets	(19,336)	(4,913)	(4,297)
Unbilled receivable	(7,940)	—	—
Accounts payable	5,858	6,442	4,373
Accrued and other liabilities	7,295	11,919	10,386
Deferred revenue	(7,241)	714	(89)
Net cash used in operating activities	(100,617)	(82,367)	(85,132)
Investing activities			
Proceeds from divestiture	54,827	—	—
Purchase of short-term investments	(11,786)	(5,559)	(2,759)
Maturities of short-term investments	12,403	6,187	2,321
Sale of short-term investments	95	—	—
Purchases of property, plant and equipment	(4,412)	(922)	(3,367)
Proceeds on disposal of noncontrolling interest	—	10,000	—
Change in restricted cash	865	(4,040)	240
Loan to affiliate	—	—	(1,579)
Change in restricted stock	—	(24)	—
Net cash provided by (used in) investing activities	51,992	5,642	(5,144)

Financing activities			
Proceeds from sale of convertible preferred stock in May 2017 Offerings, net of issuance costs	50,411	—	—
Proceeds from sale of convertible preferred stock in August 2017 Vivo Offering, net of issuance costs	24,768	—	—
Proceeds from sale of convertible preferred stock in August 2017 DSM Offering, net of issuance costs	25,945	—	—
Proceeds from issuance of common stock in private placements, net of issuance costs	—	—	24,625
Proceeds from debt issued	18,925	63,911	66,931
Proceeds from debt issued to related parties	—	29,699	10,850
Principal payments on debt	(37,500)	(9,759)	(40,819)
Payment on early redemption of debt	(1,909)	—	—
Proceeds from issuance of contingently redeemable common stock	—	5,000	—
Proceeds from exercise of warrants	—	5,000	285
Proceeds from exercises of common stock options, net of repurchases	160	180	614
Principal payments on capital leases	—	(1,579)	(729)
Change in restricted cash related to contingently redeemable common stock	1,046	—	—
Payment of swap termination	(3,113)	—	—
Employees' taxes paid upon vesting of restricted stock units	(385)	(253)	(333)
Net cash provided by financing activities	78,348	92,199	61,424
Effect of exchange rate changes on cash and cash equivalents	186	(316)	(1,203)
Net increase (decrease) in cash and cash equivalents	29,909	15,158	(30,055)
Cash and cash equivalents at beginning of period	27,150	11,992	42,047
Cash and cash equivalents at end of period	$57,059	$27,150	$11,992

Amyris, Inc.

CONSOLIDATED STATEMENTS OF CASH FLOWS, Continued

Years Ended December 31, (In thousands)	2017	2016	2015
Supplemental disclosures of cash flow information:			
Cash paid for interest	$11,539	$9,983	$9,425
Supplemental disclosures of non-cash investing and financing activities:			
Acquisition of property, plant and equipment under accounts payable, accrued liabilities and notes payable	$221	$(1,252)	$(465)
Financing of equipment	$—	$2,136	$613
Acquisition of noncontrolling interest in Glycotech via debt	$—	$3,906	$—
Financing of insurance premium under note payable	$(467)	$(123)	$53
Issuance of debt in exchange for prepaid royalties	$6,847	$—	$—
Issuance of note payable in exchange for debt extinguishment with third party	$16,954	$—	$—
Settlement of debt principal by a related party	$(25,000)	$—	$—
Issuance of common stock for settlement of debt principal and interest payments	$3,436	$17,410	$—
Issuance of convertible preferred stock upon conversion of debt	$40,204	$—	$—
Issuance of common stock upon conversion of debt	$28,702	$14,364	$—
Issuance of common stock for settlement of debt	$10,708	$—	$—
Receipt of antidilution warrants	$9,549	$—	$—
Deemed dividend on capital distribution to related parties	$8,468	$—	$—
Accrued interest added to debt principal	$2,816	$3,147	$6,354
Revenue recognized from noncash consideration received	$2,661	$—	$—
Cancellation of debt and accrued interest on disposal of interest in affiliate	$—	$4,252	$—

See accompanying notes to consolidated financial statements.

Amyris, Inc.

Notes to Consolidated Financial Statements

1. Basis of Presentation and Summary of Significant Accounting Policies

Business Description

Amyris, Inc. (Amyris or the Company) is a leading industrial biotechnology company that applies its technology platform to engineer, manufacture and sell high performance, natural, sustainably sourced products into the Health & Wellness, Clean Skincare, and Flavors & Fragrances markets. The Company's proven technology platform enables the Company to rapidly engineer microbes and use them as catalysts to metabolize renewable, plant-sourced sugars into large volume, high-value ingredients. The Company's biotechnology platform and industrial fermentation process replace existing complex and expensive manufacturing processes. The Company has successfully used its technology to develop and produce five distinct molecules at commercial volumes.

The Company believes that industrial synthetic biology represents a third industrial revolution, bringing together biology and engineering to generate new, more sustainable materials to meet the growing global demand for bio-based replacements for petroleum-based and traditional animal- or plant-derived ingredients. The Company continues to build demand for its current portfolio of products through an extensive sales network provided by its collaboration partners that represent the leading companies in the world for its target market sectors. The Company also has a small group of direct sales and distributors who support the Company’s Clean Skincare market. With its partnership model, the Company’s partners invest in the development of each molecule to bring it from the lab to commercial scale and use their extensive sales force to sell the Company’s ingredients and formulations to their customers as part of their core business. The Company captures long-term revenue both through the production and sale of the molecule to its partners and through royalty revenues (previously referred to as value share) from its partners' product sales to their customers.

On December 28, 2017, the Company completed the sale of Amyris Brasil, which operated the Company’s Brotas 1 production facility, to DSM and concurrently entered into a series of commercial agreements and a credit agreement with DSM. At closing, the Company received $33.0 million in cash for the capital stock of Amyris Brazil, which is subject to certain post-closing working capital adjustments; and reimbursements contingent upon DSM’s utilization of certain Brazilian tax benefits it acquired with its purchase of Amyris Brasil. The Company used $12.6 million of the cash proceeds received to repay certain indebtedness of Amyris Brasil. The total fair value of the consideration to be received by the Company for Amyris Brasil was $56.9 million and resulted in a pretax gain of $5.7 million from continuing operations.

Concurrent with the sale of Amyris Brasil, the Company and DSM entered into a series of commercial agreements including (i) a license agreement to DSM of its farnesene product for DSM to use in the Vitamin E, lubricant, and flavor and fragrance markets; (ii) a value share agreement that DSM will pay the Company specified royalties representing a portion of the profit on the sale of Vitamin E produced from farnesene under the Nenter Supply Agreement assigned to DSM; (iii) a performance agreement for the Company to perform research and development to optimize farnesene for production and sale of farnesene products; and (iv) a transition services agreement for the Company to provide finance, legal, logistics, and human resource services to support the Brotas 1 facility under DSM ownership for a six-month period with a DSM option to extend for six additional months. At closing, DSM paid the Company a nonrefundable license fee of $27.5 million and a nonrefundable royalty payment (previously referred to as value share) of $15.0 million. DSM will also pay the Company nonrefundable minimum annual royalty payments in 2018 and 2019. The future nonrefundable minimum annual royalty payments were determined to be fixed and determinable with a fair value of $17.8 million, and were included as part of the total arrangement consideration subject to allocation of this overall multiple-element divestiture transaction. See Note 10, “Significant Revenue Agreements”, for a full listing and details of agreements entered into with DSM. Additionally, the Company and DSM entered into a $25.0 million credit agreement that the Company used to repay all outstanding amounts under the Guanfu Note (see Note 4, “Debt”).

Liquidity

The Company has incurred significant operating losses since its inception and expects to continue to incur losses and negative cash flows from operations for at least the next 12 months following the issuance of the financial statements. As of December 31, 2017, the Company had negative working capital of $59.6 million, (compared to negative working capital of $77.9 million as of December 31, 2016), and an accumulated deficit of $1.2 billion.

As of December 31, 2017, the Company's debt (including related party debt), net of deferred discount and issuance costs of $30.4 million, totaled $165.4 million, of which $56.9 million is classified as current and $21.8 million of which is mandatorily convertible into equity and within the control of the Company. The Company's debt service obligations through April 17, 2019 are $129.3 million, including $12.9 million of anticipated cash interest payments. The Company's debt agreements contain various covenants, including certain restrictions on the Company's business that could cause the Company to be at risk of defaults, such as restrictions on additional indebtedness, material adverse effect and cross default clauses. A failure to comply with the covenants and other provisions of the Company’s debt instruments, including any failure to make a payment when required, would generally result in events of default under such instruments, which could permit acceleration a substantial portion of such indebtedness. If such indebtedness is accelerated, it would generally also constitute an event of default under the Company’s other outstanding indebtedness, permitting acceleration of a substantial portion of such other outstanding indebtedness.

Cash and cash equivalents of $57.1 million as of December 31, 2017 and cash proceeds from the Warrant Exchange and Exercise on April 12, 2018 (see Note 18), are not sufficient to fund expected future negative cash flows from operations and cash debt service obligations through March 31, 2019. These factors raise substantial doubt about the Company’s ability to continue as a going concern within one year after the date that these financial statements are issued. The financial statements do not include any adjustments that might result from the outcome of this uncertainty. The Company's ability to continue as a going concern will depend, in large part, on its ability to extend existing debt maturities by restructuring a majority of its convertible debt, which is uncertain and outside the control of the Company, in addition to the conversion of certain debt obligations into equity, which conversion is within the control of the Company. Further, the Company's operating plan for 2018 contemplates a significant reduction in its net operating cash outflows as compared to the year ended December 31, 2017, resulting from (i) revenue growth from sales of existing and new products with positive gross margins, (ii) significantly increased royalty revenues (previously referred to as value share revenues) (iii) reduced production costs as a result of manufacturing and technical developments, and (iv) cash inflows from grants and collaborations. Finally, in the first half of 2018, the Company plans to obtain project financing for the Brotas 2 facility construction. If the Company is unable to complete these actions, it expects to be unable to meet its operating cash flow needs and its obligations under its existing debt facilities. This could result in an acceleration of its obligation to repay all amounts outstanding under those facilities, and it may be forced to liquidate its assets or obtain additional equity or debt financing, which may not occur timely or on reasonable terms, if at all.

Basis of Consolidation

The accompanying consolidated financial statements have been prepared in accordance with the accounting principles generally accepted in the United States (U.S. GAAP). The consolidated financial statements include the accounts of Amyris, Inc. and its wholly-owned and partially-owned subsidiaries in which the Company has a controlling interest after elimination of all significant intercompany accounts and transactions.

Investments and joint venture arrangements are assessed to determine whether the terms provide economic or other control over the entity requiring consolidation of the entity. Entities controlled by means other than a majority voting interest are referred to as variable-interest entities (VIEs) and are consolidated when Amyris has both the power to direct the activities of the VIE that most significantly impact its economic performance and the obligation to absorb losses or the right to receive benefits that could potentially be significant to the entity. For any investment or joint venture in which (i) the Company does not have a majority ownership interest, (ii) the Company possesses the ability to exert significant influence and (iii) the entity is not a VIE for which the Company is considered the primary beneficiary, the Company accounts for the investment or joint venture using the equity method. Investments in which the Company does not possess the ability to exert significant influence over the investee and are not VIEs for which the Company is considered the primary beneficiary are accounted for using the cost method. For investments that the Company accounts for under the cost method, earnings from the investment are equal to dividends received from the investee.

Sale of Subsidiary and Entry into Commercial Agreements

On December 28, 2017, the Company completed the sale of all the capital stock of Amyris Brasil, a wholly-owned subsidiary, to DSM Produtos Nutricionais Brasil S.A (DSM), a related party. Amyris Brasil owned and operated the Company's production facility (Brotas 1) in Brotas, Brazil. The transaction resulted in a pretax gain of $5.7 million from continuing operations. The transaction did not result in presenting Amyris Brasil as a discontinued operation in the consolidated financial statements because (a) the transaction did not represent a strategic shift in accordance with U.S. GAAP or (b) result in the release of Amyris Brasil's $29.7 million cumulative translation adjustment from stockholders' equity, as the transaction was not a substantial liquidation in accordance with U.S. GAAP due to the Company's continuing commercial presence and reinvestment in a new production facility (Brotas 2) under construction in Brazil and its continuing operation, SMA, in Brazil. The Company and DSM also entered into a series of commercial agreements and a credit agreement concurrently with the sale of Amyris Brasil. See Note 10, "Significant Revenue Agreements", Note 11, "Related Party Transactions", and Note 13, "Divestiture" for further information.

Use of Estimates and Judgements

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates, judgements and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates, and such differences may be material to the consolidated financial statements.

Reverse Stock Split

On June 5, 2017, the Company effected a 1 for 15 reverse stock split (Reverse Stock Split) of the Company's common stock, par value $0.0001 per share, as well as a reduction in the total number of authorized shares of common stock from 500,000,000 to 250,000,000. Unless otherwise noted, all common stock share quantities and per-share amounts for all periods presented in the financial statements and notes thereto have been retroactively adjusted for the Reverse Stock Split as if such Reverse Stock Split had occurred on the first day of the first period presented. Certain amounts in the notes to the financial statements may be slightly different from previously reported due to rounding of fractional shares as a result of the Reverse Stock Split.

The par value, number of shares outstanding and number of authorized shares of preferred stock were not adjusted as a result of the reverse stock split.

Reclassifications

Certain prior period amounts have been reclassified to conform to the current period presentation in the Company's consolidated financial statements and the accompanying notes to the consolidated financial statements. The consolidated statements of operations previously presented license fee revenue in combination with grants and collaborations revenue, and royalties (formerly referred to as "value share") were previously presented in combination with renewable products revenue. Licenses and royalties revenue is presented as a separate line within the consolidated statements of operations. The reclassifications reflect the growth in the Company's business model to license its technology and earn royalties from customers utilizing the Company's technology in the products it produces and sells. The reclassifications had no impact on total revenue. Additional information is disclosed in the notes if material.

Significant Accounting Policies

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with an original or remaining maturity of three months or less at the date of purchase to be cash equivalents. Cash and cash equivalents are maintained with various financial institutions.

Inventories

Inventories, which consist of farnesene-derived products and flavors and fragrances ingredients, are stated at the lower of cost or net realizable value and are categorized as finished goods, work in process or raw material inventories. The Company evaluates the recoverability of its inventories based on assumptions about expected demand and net realizable value. If the Company determines that the cost of inventories exceeds their estimated net realizable value, the Company records a write-down equal to the difference between the cost of inventories and the estimated net realizable value. If actual net realizable values are less favorable than those projected by management, additional inventory write-downs may be required that could negatively impact the Company's operating results. If actual net realizable values are more favorable, the Company may have favorable operating results when products that have been previously written down are sold in the normal course of business. The Company also evaluates the terms of its agreements with its suppliers and establishes accruals for estimated losses on adverse purchase commitments as necessary, applying the same lower of cost or net realizable value approach that is used to value inventory. Cost is computed on a first-in, first-out basis. Inventory costs include transportation costs incurred in bringing the inventory to its existing location.

Property, Plant and Equipment, Net

Property and equipment are recorded at cost. Depreciation and amortization are computed straight-line based on the estimated useful lives of the related assets, ranging from 3 to 15 years for machinery, equipment and fixtures, and 15 years for buildings. Leasehold improvements are amortized over their estimated useful lives or the period of the related lease, whichever is shorter.

The Company expenses costs for maintenance and repairs and capitalizes major replacements, renewals and betterments. For assets retired or otherwise disposed, both cost and accumulated depreciation are eliminated from the asset and accumulated depreciation accounts, and gains or losses related to the disposal are recorded in the statement of operations for the period.

Impairment of Long-Lived Assets

Long-lived assets that are held and used by the Company are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Determination of recoverability of long-lived assets is based on an estimate of the undiscounted future cash flows resulting from the use of the asset and its eventual disposition. Measurement of an impairment loss for long-lived assets that management expects to hold and use is based on the difference between the fair value of the asset and its carrying value. Long-lived assets to be disposed of are reported at the lower of carrying amount or fair value less costs to sell.

Recoverable Taxes from Brazilian Government Entities

Recoverable taxes from Brazilian government entities represent value-added taxes paid on purchases in Brazil, which are reclaimable from the Brazilian tax authorities, net of reserves for amounts estimated not to be recoverable.

Fair Value Measurements

The Company measures certain financial assets and liabilities at fair value based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Where available, fair value is based on or derived from observable market prices or other observable inputs. Where observable prices or inputs are not available, valuation techniques are applied. These valuation techniques involve some level of management estimation and judgement, the degree of which is dependent on the price transparency for the instruments or market and the instruments' complexity.

The carrying amounts of certain financial instruments, such as cash equivalents, short-term investments, accounts receivable, accounts payable and accrued liabilities, approximate fair value due to their relatively short maturities. The fair values of loans payable, convertible notes and credit facilities are based on the present value of expected future cash flows and assumptions about current interest rates and the creditworthiness of the Company. The loans payable, convertible notes and credit facilities are carried on the consolidated balance sheet on a historical cost basis, because the Company has not elected to recognize the fair value of these liabilities. However, the Remaining Notes subject to the Maturity Treatment Agreement were revalued to fair value on July 29, 2015; see Note 4, "Debt" for details.

Changes in the inputs into these valuation models have a significant impact on the estimated fair value of the embedded and freestanding derivatives. For example, a decrease (increase) in the estimated credit spread for the Company results in an increase (decrease) in the estimated fair value of the embedded derivatives. Conversely, a decrease (increase) in the stock price results in a decrease (increase) in the estimated fair value of the embedded derivatives. The changes during 2017, 2016 and 2015 in the fair values of the bifurcated compound embedded derivatives are primarily related to the change in price of the Company's common stock and are reflected in the consolidated statements of operations as “Gain from change in fair value of derivative instruments.”

Derivatives

The Company has made limited use of derivative instruments, including cross-currency interest rate swap agreements, to manage the Company's exposure to foreign currency exchange rate fluctuations and interest rate fluctuations related to the Company's Banco Pine S.A. loan, which the Company repaid in full in December 2017; see Note 4, "Debt". Changes in the fair value of the cross-currency interest rate swap derivative were recognized in the consolidated statements of operations in "Gain (loss) from change in fair value of derivative instruments". As of December 31, 2017, the balances of the loan and the associated cross-currency interest rate swap were zero.

Embedded derivatives that are required to be bifurcated from the underlying debt instrument (i.e., host) are accounted for and valued as separate financial instruments. The Company evaluated the terms and features of its convertible notes payable and convertible preferred stock and identified compound embedded derivatives requiring bifurcation and accounting at fair value because the economic and contractual characteristics of the embedded derivatives met the criteria for bifurcation and separate accounting due to the instruments containing conversion options, “make-whole interest” provisions, down round conversion price adjustment provisions and conversion rate adjustments. Cash and anti-dilution warrants issued in conjunction with the convertible debt and equity financings are freestanding financial instruments which are also classified as derivative liabilities.

Noncontrolling Interest

Noncontrolling interests represent the portion of the Company's net income (loss), net assets and comprehensive income (loss) that is not allocable to the Company, in situations where the Company consolidates its equity investment in a joint venture for which there are other owners. The amount of noncontrolling interest is comprised of the amount of such interests at the date of the Company's original acquisition of an equity interest in a joint venture, plus the other shareholders' share of changes in equity since the date the Company made an investment in the joint venture.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to a concentration of credit risk consist primarily of cash and cash equivalents, short-term investments and accounts receivable. The Company places its cash equivalents and investments (primarily certificates of deposits) with high credit quality financial institutions and, by policy, limits the amount of credit exposure with any one financial institution. Deposits held with banks may exceed the amount of insurance provided on such deposits. The Company has not experienced any losses on its deposits of cash and cash equivalents and short-term investments.

The Company performs ongoing credit evaluation of its customers, does not require collateral, and maintains allowances for potential credit losses on customer accounts when deemed necessary.

Customers representing 10% or greater of accounts receivable were as follows:

As of December 31,	2017	2016
Customer A (related party)	38%	*
Customer B	10%	33%
Customer C	**	22%
Customer E	15%	**

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** Less than 10%

Customers representing 10% or greater of revenue were as follows:

Years Ended December 31,	2017	2016	2015
Customer A (related party)	42%	*	*
Customer B	12%	27%	37%
Customer C	10%	**	*
Customer D	**	22%	*
Customer E	**	14%	**
Customer G	**	**	10%

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* Not a customer

** Less than 10%

Revenue Recognition

The Company recognizes revenue from the sale of renewable products, licenses of and royalties from intellectual property, and grants and collaborative research and development services. Revenue is recognized when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the fee is fixed or determinable, and collectability is reasonably assured.

If sales arrangements contain multiple elements, the Company evaluates whether the components of each arrangement represent separate units of accounting.

Renewable Product Sales

The Company's renewable product sales do not include rights of return. Returns are only accepted if the product does not meet product specifications and such nonconformity is communicated to the Company within a set number of days of delivery. The Company offers a two year standard warranty provision for squalane products sold after March 31, 2012, if the products do not meet Company-established criteria as set forth in the Company's trade terms. The Company bases its return reserve on a historical rate of return for the Company's squalane products. Revenues are recognized, net of discounts and allowances, once passage of title and risk of loss has occurred and contractually specified acceptance criteria have been met, provided all other revenue recognition criteria have also been met.

Licenses and Royalties

License fees for intellectual property transferred to other parties, representing non-refundable payments received at the time of signature of license agreements, are recognized as revenue upon signature of the license agreements when the Company has no significant future performance obligations and collectability of the fees is assured. Upfront payments received at the beginning of licensing agreements with future service obligations are deferred and recognized as revenue on a systematic basis over the period during which the related services are rendered and all obligations are performed.

Royalties from intellectual property licenses that allow Amyris's customers to use the Company’s intellectual property to produce and sell their products in which the Company shares in the profits are recognized in the period the royalty report is received.

Grants and Collaborative Research and Development Services

Revenues from collaborative research and development services are recognized as the services are performed consistent with the performance requirements of the contract. In cases where the planned levels of research and development services fluctuate over the research term, the Company recognizes revenues using the proportional performance method based upon actual efforts to date relative to the amount of expected effort to be incurred by us. When up-front payments are received and the planned levels of research and development services do not fluctuate over the research term, revenues are recorded on a ratable basis over the arrangement term, up to the amount of cash received. When up-front payments are received and the planned levels of research and development services fluctuate over the research term, revenues are recorded using the proportional performance method, up to the amount of cash received. Where arrangements include milestones that are determined to be substantive and at risk at the inception of the arrangement, revenues are recognized upon achievement of the milestone and is limited to those amounts whereby collectability is reasonably assured.

Grants are agreements that generally provide cost reimbursement for certain types of expenditures in return for research and development activities over a contractually defined period. Revenues from grants are recognized in the period during which the related costs are incurred, provided that the conditions under which the grants were provided have been met and only perfunctory obligations are outstanding.

Cost of Products Sold

Cost of products sold includes the production costs of renewable products, which include the cost of raw materials, amounts paid to contract manufacturers and period costs including inventory write-downs resulting from applying lower of cost or net realizable value inventory adjustments. Cost of products sold also includes certain costs related to the scale-up of production. Shipping and handling costs charged to customers are recorded as revenues. Outbound shipping costs incurred are included in cost of products sold. Such charges were not material for any of the periods presented.

Research and Development

Research and development costs are expensed as incurred and include costs associated with research performed pursuant to collaborative agreements and government grants, including internal research. Research and development costs consist of direct and indirect internal costs related to specific projects, as well as fees paid to others that conduct certain research activities on the Company’s behalf.

Debt Extinguishment

The Company accounts for the income or loss from extinguishment of debt in accordance with ASC 470, *Debt,* which indicates that for all extinguishment of debt, the difference between the reacquisition price and the net carrying amount of the debt being extinguished should be recognized as gain or loss when the debt is extinguished. The gain or loss from debt extinguishment is recorded in the consolidated statements of operations under "other income (expense)" as "gain (loss) from extinguishment of debt."

Stock-based Compensation

The Company accounts for stock-based employee compensation plans under the fair value recognition and measurement provisions of U.S. GAAP. Those provisions require all stock-based payments to employees, including grants of stock options and restricted stock units (RSUs), to be measured using the grant-date fair value of each award. The Company recognizes stock-based compensation expense net of expected forfeitures over each award's requisite service period, which is generally the vesting term. Expected forfeiture rates are based on the Company's historical experience. Stock-based compensation plans are described more fully in Note 12, "Stock-based Compensation".

Income Taxes

The Company is subject to income taxes in the United States and foreign jurisdictions and uses estimates to determine its provisions for income taxes. The Company uses the asset and liability method of accounting for income taxes, whereby deferred tax asset or liability account balances are calculated at the balance sheet date using current tax laws and rates in effect for the year in which the differences are expected to affect taxable income.

Recognition of deferred tax assets is appropriate when realization of such assets is more likely than not. The Company recognizes a valuation allowance against its net deferred tax assets unless it is more likely than not that such deferred tax assets will be realized. This assessment requires judgement as to the likelihood and amounts of future taxable income by tax jurisdiction.

The Company applies the provisions of Financial Accounting Standards Board (FASB) guidance on accounting for uncertainty in income taxes. The Company assesses all material positions taken in any income tax return, including all significant uncertain positions, in all tax years that are still subject to assessment or challenge by relevant taxing authorities. Assessing an uncertain tax position begins with the initial determination of the position’s sustainability, and the tax benefit to be recognized is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. As of each balance sheet date, unresolved uncertain tax positions must be reassessed, and the Company will determine whether (i) the factors underlying the sustainability assertion have changed and (ii) the amount of the recognized tax benefit is still appropriate. The recognition and measurement of tax benefits requires significant judgement, and such judgements may change as new information becomes available.

Foreign Currency Translation

The assets and liabilities of foreign subsidiaries, where the local currency is the functional currency, are translated from their respective functional currencies into U.S. dollars at the rates in effect at each balance sheet date, and

revenue and expense amounts are translated at average rates during each period, with resulting foreign currency translation adjustments recorded in other comprehensive loss, net of tax, in the consolidated statements of stockholders' deficit. As of December 31, 2017 and 2016, cumulative translation losses, net of tax, were $42.2 million and $40.9 million, respectively.

Where the U.S. dollar is the functional currency, remeasurement adjustments are recorded in other income (expense), net in the accompanying consolidated statements of operations. Net losses resulting from foreign exchange transactions were $0.4 million, $0.6 million, and $1.3 million for the years ended December 31, 2017, 2016, and 2015, respectively.

Recently Adopted Accounting Standards

During the year ended December 31, 2017 the Company adopted the following Accounting Standards Updates (ASUs):

- ASU 2015-11, *Inventory (Topic 330): Simplifying the Measurement of Inventory.* Under ASU 2015-11, inventory is measured at the lower of cost or net realizable value (NRV). NRV is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Under the previous guidance, inventory was measured at the lower of cost or market, with market defined as NRV less a normal profit margin.

- ASU 2016-06*, Derivatives and Hedging (Topic 815): Contingent Put and Call Options in Debt Instruments.* The Company did not elect a one-time option, as of January 1, 2017, to irrevocably elect to measure the Company's debt instruments at fair value with changes in fair value recognized in earnings.

- ASU 2016-09, *Compensation–Stock Compensation (Topic 718): Improvements to Employee Share-based Payment Accounting.* ASU 2016-09 simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, classification on the statement of cash flows and an entity can now make an entity-wide election to either estimate the number of awards expected to vest or account for forfeitures when they occur. The Company elected to continue to estimate expected forfeitures using historical experience and will revise its estimated forfeiture rate if actual forfeitures differ from initial estimates. Upon adoption, the Company recognized previously unrecognized excess tax benefits using the modified retrospective transition method. The previously unrecognized excess tax effects were recorded as a deferred tax asset, which was fully offset by a valuation allowance. Without the valuation allowance, the Company’s deferred tax assets would have increased by $40.1 million.

None of the adopted ASUs had a material impact on the Company’s consolidated financial statements and related disclosures.

Recently Issued Accounting Standards Not Yet Adopted

Revenue Recognition

In May 2014, the FASB issued Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers* (ASU 2014-09), which will become effective for the Company beginning in the first quarter of 2018. The standard’s core principle is that a reporting entity will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The FASB issued supplemental adoption guidance and clarification to ASU 2014-09 in March 2016, April 2016, May 2016 and December 2016 within ASU 2016-08, *Revenue from Contracts with Customers: Principal versus Agent Considerations*, ASU 2016-10, *Revenue from Contracts with Customers: Identifying Performance Obligations and Licensing*, ASU 2016-12, *Revenue from Contracts with Customers: Narrow-Scope Improvements and Practical Expedients*, and ASU 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers*, respectively.

The Company is adopting these standards using the modified retrospective approach applied only to contracts that are not completed at the adoption date of January 1, 2018. The cumulative effect of adopting these standards will be recorded to retained earnings on January 1, 2018. The Company has made substantial progress towards completing its assessment of the effect of adoption and, based on that assessment, the standard will impact the measurement and timing of recognition of royalty revenues (previously referred to as value share) and the measurement and timing of recognition of certain variable incentive payments payable by the Company. Under the new standard, the Company

will be required to measure the variable consideration in the transaction price of royalty revenues and accelerate recognition of royalty revenues that have been recognized during the period the royalty report was received to the periods during which the renewable product sales occur, subject to the constraint on variable consideration. The Company also will be required to measure certain variable incentive payments payable by the Company as part of the transaction price. Adoption of the standard will result in a pretax adjustment to retained earnings on January 1, 2018 ranging from a decrease of $1.0 million to an increase of $2.0 million, primarily from the measurement of the variable consideration in the transaction price of royalty revenues and the acceleration of royalty revenue recognition. Adoption of these standards also will result in additional revenue-related disclosures in the notes to the condensed consolidated financial statements for the first quarter of 2018.

Financial Instruments

In January 2016, the FASB issued ASU 2016-01, *Financial Instruments-Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*, which changes the accounting for equity investments, financial liabilities under the fair value option, and the presentation and disclosure requirements for financial instruments. ASU 2016-01 requires, among other things, that equity investments (other than those accounted for using the equity method of accounting) be measured at fair value through earnings. However, entities can elect a measurement alternative if the equity investment does not have a readily determinable fair value. Under this alternative method, the equity investment is recorded at cost and remeasured to fair value when there is an observable transaction involving the same or similar equity investment or an impairment. ASU 2016-01 became effective January 1, 2018, and the transition provisions generally require adoption using the modified retrospective approach. However, ASU 2016-01 is applied prospectively to equity investments without a readily determinable fair value that exist as of the date of adoption. The election to apply to measurement alternative is made upon the adoption of ASU 2016-01, and subsequently upon the purchase or acquisition of an equity investment.

In February 2018, the FASB issued ASU 2018-03, *Technical Corrections and Improvements to Financial Instruments - Recognition and Measurement of Financial Assets and Financial Liabilities*. ASU 2018-03 provides reporting entities with the option to move from the measurement alternative to fair value through current earnings but stipulates that once the voluntary election is made to stop using the measurement alternative it can no longer be applied to any identical or similar investment from the same issuer. ASU 2018-03 also clarifies that when applying the measurement alternative to equity investments that do not have a readily determinable fair value the equity investment is remeasured to its fair value as of the date of the observable price/transaction. ASU 2018-03 is effective for fiscal years beginning after December 15, 2017, and interim periods beginning after June 15, 2018, but may be adopted concurrently with ASU 2016-01.

The Company will be adopting ASU 2016-01 and ASU 2018-03 concurrently on January 1, 2018. The Company is currently evaluating the adoption impact of these standards, including whether to elect the measurement alternative for the investment in the unregistered shares of SweeGen, Inc. The Company does not expect the impact of adoption to be material to the consolidated financial statements.

Leases

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842),* with fundamental changes as to how entities account for leases. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all of their leases (other than leases that meet the definition of a short-term lease). The liability will be equal to the present value of lease payments. The asset will be based on the liability, subject to adjustment, such as for initial direct costs. Additional disclosures for leases will also be required. The accounting standard update will be effective beginning in the first quarter of fiscal 2019 using a modified retrospective approach, which requires lessees and lessors to recognize and measure leases at the beginning of the earliest period presented. The Company is in the initial stages of evaluating

the impact of the new standard on its consolidated financial statements.

Classification of Cash Flow Elements

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230) - *Classification of Certain Cash Receipts and Cash Payments*. The new standard amends the existing standards for the statement of cash flows to provide guidance on the following cash flow issues: debt prepayment or debt extinguishment costs; settlement of zero-coupon or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; contingent consideration payments made after a business combination; proceeds from the settlement of insurance claims; proceeds from the settlement of corporate-owned life insurance policies; distributions received from equity method investees; beneficial interests in securitization transactions; separately identifiable cash flows and application of the predominance principle; and restricted cash. ASU 2016-15 became effective January 1, 2018 with adoption required using the retrospective transition method. The Company is evaluating the impact that this standard will have on the consolidated statement of cash flows.

Income Tax Consequences of Intra-Entity Transfers of Assets Other Than Inventory

In October 2016, the FASB issued ASU 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers Other than Inventory*, which requires companies to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs, rather than when the asset has been sold to an outside party. The Company will adopt the new standard effective January 1, 2018, using the modified retrospective transition approach through a cumulative-effect adjustment to retained earnings as of the effective date. A cumulative-effect adjustment will capture the write-off of income tax consequences deferred from past intra-entity transfers involving assets other than inventory, new deferred tax assets, and other liabilities for amounts not currently recognized under U.S. GAAP. Based on transactions up to December 31, 2017, the Company anticipates that the effect of adoption of ASU 2016-16 on the consolidated financial statements will be immaterial.

Restricted Cash in Statement of Cash Flows

In November 2016, the FASB issued ASU 2016-18, Statement of Cash Flows (Topic 230): *Restricted Cash*, to address the diversity in the classification and presentation of changes in restricted cash in the statement of cash flows by requiring entities to combine the changes in cash and cash equivalents and restricted cash in one line. As a result, entities will no longer present transfers between cash and cash equivalents and restricted cash in the statement of cash flows. Additionally, if more than one line item is recorded on the balance sheet for cash and cash equivalents and restricted cash, a reconciliation between the statement of cash flows and balance sheet is required. ASU 2016-18 became effective January 1, 2018 with adoption required using the retrospective transition method. The Company does not expect the impact of adoption to be material to the consolidated statement of cash flows.

Derecognition of Nonfinancial Assets

In February 2017, the FASB issued ASU 2017-05, *Other Income—Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets,* which requires entities to apply certain recognition and measurement principles in ASC 606 when they derecognize nonfinancial assets and in substance nonfinancial assets, and the counterparty is not a customer. The guidance applies to: (1) contracts to transfer to a noncustomer a nonfinancial asset or group of nonfinancial assets, or an ownership interest in a consolidated subsidiary that does not meet the definition of a business and is not a not-for-profit activity; and (2) contributions of nonfinancial assets that are not a business to a joint venture or other noncontrolled investee. The accounting standard update will be effective beginning in the first quarter of fiscal 2018 on a modified retrospective basis. The Company is assessing the impact to its accounting practices and financial reporting procedures as a result of the issuance of this standard.

Financial Instruments with "Down Round" Features

In July 2017, the FASB issued ASU 2017-11, *Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815): Accounting for Certain Financial Instruments with Down Round Features*. The amendments of this ASU update the classification analysis of certain equity-linked financial instruments, or embedded features, with down round features, as well as clarify existing disclosure requirements for equity-classified instruments. When determining whether certain financial instruments should be classified as liabilities or equity instruments, a down round feature no longer precludes equity classification when assessing whether the instrument is indexed to an entity's own stock. The accounting standard update will be effective beginning in the first quarter of fiscal 2019 using a modified retrospective approach. The Company is in the initial stages of evaluating the impact of the new standard on its consolidated financial statements.

2. Balance Sheet Details

Accounts Receivable, Net

December 31, (In thousands)	2017	2016
Accounts receivable	$19,572	$13,673
Related party accounts receivable	14,691	805
	34,263	14,478
Less: allowance for doubtful accounts	(642)	(501)
Total accounts receivable, net	$33,621	$13,977

Inventories

December 31, **(In thousands)**	2017	2016
Raw materials	$819	$3,159
Work in process	364	1,848
Finished goods	4,225	1,206
Total inventories	$5,408	$6,213

Property, Plant and Equipment, net

December 31, **(In thousands)**	2017	2016
Machinery and equipment	$49,277	$82,688
Leasehold improvements	40,036	38,785
Computers and software	9,555	9,585
Buildings	—	4,699
Furniture and office equipment, vehicles and land	3,415	2,957
Construction in progress	17,438	2,216
	119,721	140,930
Less: accumulated depreciation and amortization	(105,829)	(87,195)
Total property, plant and equipment, net	$13,892	$53,735

Property, plant and equipment, net includes $4.2 million and $3.1 million of machinery and equipment under capital leases as of December 31, 2017 and 2016, respectively. Accumulated amortization of assets under capital leases totaled $1.6 million and $0.6 million as of December 31, 2017 and 2016, respectively.

Depreciation and amortization expense, including amortization of assets under capital leases, was $11.4 million, $11.4 million and $12.9 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Losses (gains) on disposal of property, plant and equipment were $0.1 million, $(0.2) million and $0.2 million for the years ended December 31, 2017, 2016 and 2015, respectively. Such losses or gains were included in the line captioned "Other expense, net" in the consolidated statements of operations.

In December 2017, the Company's sold its Brotas production plant in Brazil to a unit of DSM Nutritional Products Ltd (together with its affiliates, DSM); see Note 13, "Divestiture" for details.

In 2016, the Company recorded an impairment charge of $7.3 million (in "Impairment of property, plant and equipment" in the consolidated statements of operations), related to assets used in a Brazilian joint venture and by a Brazilian contract manufacturer.

Other Assets

December 31, **(In thousands)**	2017	2016
Contingent consideration	$8,151	$—
Prepaid royalty	7,409	—
Cost-method investment in SweeGen	3,233	—
Deposits	2,462	409
Goodwill	560	560
Other	825	1,366
Total other assets	$22,640	$2,335

Accrued and Other Current Liabilities

December 31, **(In thousands)**	2017	2016
Accrued interest	$8,213	$4,847
Payroll and related expenses	7,238	6,344
Tax-related liabilities	5,837	2,610
SMA relocation accrual	3,587	3,641
Other	2,633	5,792
Professional services	1,894	6,876
Total accrued and other current liabilities	$29,402	$30,110

Other Noncurrent Liabilities

December 31, **(In thousands)**	2017	2016
Deferred rent, net of current portion	$7,818	$8,906
Deferred revenue, net of current portion	383	6,650
Capital lease obligation, net of current portion	217	334
Accrued interest, net of current portion	—	5,542
Other liabilities	2,214	2,299
Total other noncurrent liabilities	$10,632	$23,731

3. Fair Value Measurement

Assets and liabilities are measured and reported at fair value per related accounting standards that define fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value. An asset's or liability's level is based on the lowest level of input that is significant to the fair value measurement. Assets and liabilities carried at fair value are valued and disclosed in one of the following three levels of the valuation hierarchy:

- Level 1: Quoted market prices in active markets for identical assets or liabilities.
- Level 2: Observable market-based inputs or unobservable inputs that are corroborated by market data.
- Level 3: Unobservable inputs that are not corroborated by market data.

As of December 31, 2017 and 2016, the Company’s financial assets and financial liabilities measured at fair value on a recurring basis were classified within the fair value hierarchy as follows:

December 31, (In thousands)	2017				2016			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets								
Money market funds	$53,199	$ —	$—	$53,199	$1,549	$—	$—	$1,549
Certificates of deposit	7,813	—	—	7,813	1,373	—	—	1,373
Total assets measured and recorded at fair value	$61,012	$ —	$—	$61,012	$2,922	$—	$—	$2,922
Liabilities								
Embedded derivatives in connection with issuance of debt and equity instruments	$—	$ —	$4,203	$4,203	$—	$—	$2,283	$2,283
Freestanding derivative instruments in connection with issuance of equity instruments	—	—	$115,775	$115,775	—	—	1,852	1,852
Cross-currency interest rate swap derivative liability[(1)]	—		—	—	—	3,343	—	3,343
Total liabilities measured and recorded at fair value	$—	$ —	$119,978	$119,978	$—	$3,343	$4,135	$7,478

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(1) The balance of the cross-currency interest rate swap derivative liability at December 31, 2017 was zero, subsequent to the Company's December 2017 repayment in full of the Banco Pine loan.

There were no transfers between the levels during 2017 or 2016.

The Company’s assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgements and consider factors specific to the asset or liability. The fair values of money market funds and certificates of deposit are based on fair values of identical assets. The fair values of the loans payable, convertible notes, credit facilities and cross-currency interest rate swap are based on the present value of expected future cash flows and assumptions about current interest rates and the creditworthiness of the Company. The method of determining the fair value of the compound embedded derivative liabilities is described subsequently in this note. Market risk associated with the fixed and variable rate long-term loans payable, credit facilities and convertible notes relates to the potential reduction in fair value and negative impact to future earnings, from an increase in interest rates. Market risk associated with the compound embedded derivative liabilities relates to the potential reduction in fair value and negative impact to future earnings from a decrease in interest rates.

At December 31, 2017 and December 31, 2016, the carrying value of certain financial instruments, such as cash equivalents, accounts receivable, prepaid expenses and other current assets, accounts payable and other current

accrued liabilities, approximate fair value due to their relatively short maturities and low market interest rates, if applicable.

Derivative Instruments

The following table provides a reconciliation of the beginning and ending liability balances associated with both freestanding and compound embedded derivatives measured at fair value using significant unobservable inputs (Level 3):

(in thousands)	2017	2016
Balance at January 1	$4,135	$46,430
Additions	130,957	2,050
(Gain) loss from change in fair value of derivative liabilities	31,600	(41,459)
Derecognition upon conversion or extinguishment	(46,714)	(2,886)
Balance at December 31	$119,978	$4,135

The liabilities associated with freestanding and compound embedded derivatives represent the fair value of the equity conversion options, make-whole provisions, down round conversion price or conversion rate adjustment provisions and antidilution provisions in some of the Company's debt, preferred stock, cash warrants and antidilution warrants; see Note 4, "Debt", and Note 6, "Stockholders' Deficit. There is no current observable market for these types of derivatives and, as such, the Company determined the fair value of the freestanding or embedded derivatives using the binomial lattice model. The binomial lattice model was used to value the embedded and freestanding derivatives.

A Monte Carlo simulation valuation model combines expected cash outflows with market-based assumptions regarding risk-adjusted yields, stock price volatility, probability of a change of control and the trading information of the Company's common stock into which the notes are or may be convertible. A binomial lattice model generates two probable outcomes - one up and another down - arising at each point in time, starting from the date of valuation until the maturity date.

A lattice model was used to determine if a convertible note or share of convertible preferred stock would be converted, called or held at each decision point. Within the lattice model, the following assumptions are made: (i) the convertible note or share of convertible preferred stock will be converted early if the conversion value is greater than the holding value and (ii) the convertible note or share of convertible preferred stock will be called if the holding value is greater than both (a) redemption price and (b) the conversion value at the time. If the convertible note or share of convertible preferred stock is called, the holder will maximize their value by finding the optimal decision between (1) redeeming at the redemption price and (2) converting the convertible note or share of convertible preferred stock. Using this lattice method, the Company valued the embedded and freestanding derivatives using the "with-and-without method", where the fair value of each related convertible note or share of convertible preferred stock including the embedded derivative is defined as the "with", and the fair value of the convertible note excluding the embedded derivatives is defined as the "without". This method estimates the fair value of the embedded and freestanding derivatives by looking at the difference in the values between each convertible note or share of convertible preferred stock with the embedded and freestanding derivatives and the fair value of such convertible note or share of convertible preferred stock without the embedded and freestanding derivatives. The lattice model uses the stock price, conversion price, maturity date, risk-free interest rate, estimated stock volatility and estimated credit spread. The Company marks the compound embedded derivatives to market due to the conversion price not being indexed to the Company's own stock.

The market-based assumptions and estimates used in valuing the compound embedded and freestanding derivative liabilities include amounts in the following ranges/amounts:

December 31,	2017			2016		
Risk-free interest rate	1.68%	-	2.40%	0.55%	-	1.31%
Risk-adjusted yields	18.40%	-	28.53%	12.80%	-	22.93%
Stock price volatility	45%	-	80%	45%		
Probability of change in control	5%			5%		
Stock price	$3.75			$10.95		
Credit spread	16.63%	-	26.70%	11.59%	-	21.64%
Estimated conversion dates	2018	-	2025	2017	-	2019

Changes in valuation assumptions can have a significant impact on the valuation of the embedded and freestanding derivative liabilities. For example, all other things being equal, a decrease/increase in the Company’s stock price, probability of change of control, credit spread, term to maturity/conversion or stock price volatility decreases/increases the valuation of the liabilities, whereas a decrease/increase in risk adjusted yields or risk-free interest rates increases/decreases the valuation of the liabilities. Certain of the convertible notes and shares of convertible preferred stock also include conversion price adjustment features and, for example, certain issuances of

common stock by the Company at prices lower than the current conversion price result in a reduction of the conversion price of such notes or convertible preferred stock, which increases the value of the embedded and freestanding derivative liabilities; see Note 4, "Debt" for details.

In June 2012, the Company entered into a cross-currency interest rate swap arrangement with Banco Pine with respect to the repayment of R$22.0 million (approximately U.S. $6.6 million based on the exchange rate as of December 31, 2017) of the Banco Pine Note. The swap arrangement exchanged the principal and interest payments under the Banco Pine Note (see Note 4, "Debt") for alternative principal and interest payments that are subject to adjustment based on fluctuations in the foreign currency exchange rate between the U.S. dollar and Brazilian real. The swap had a fixed interest rate of 3.94%. Changes in the fair value of the swap were recognized in the consolidated statements of operations, in “Gain (loss) from change in fair value of derivative instruments". As of December 31, 2017, the balances of the loan and the associated cross-currency interest rate swap were zero.

On July 29, 2015, Maxwell (Mauritius) Pte Ltd (Temasek) exchanged its Tranche I Notes and Tranche II Notes (see the "August 2013 Financing Convertible Notes" subsection of Note 4, "Debt") and Total exchanged $70 million in principal amount of R&D Notes (see the "R&D Note" subsection of Note 4, "Debt") for shares of the company's common stock (the “Exchange”). As part of the Exchange transaction, the Company granted a warrant to Temasek to purchase the Company’s common stock (the Temasek Funding Warrant). The terms of the Temasek Funding Warrant provide for an adjustment to the number of shares issuable in the future based on the number of any additional shares for which certain of the Company’s outstanding convertible promissory notes may become exercisable as a result of a reduction to the conversion price of such notes, including down-round provisions. As a result of the future adjustment feature (for reduction to the conversion price of outstanding convertible notes), the Company determined the Temasek Funding Warrant would not meet the conditions in ASC 815-40-15 to be considered indexed to the Company’s own equity. Consequently, the Temasek Funding Warrant is a derivative and is marked to market each reporting period. The Temasek Funding Warrant is valued using a Black-Scholes valuation model with the following assumptions (in addition to the Company’s share price):

	Initial recognition (July 29, 2015)	
Expected dividend yield	—	%
Risk-free interest rate	2	%
Expected term (in years)	10.0	
Expected volatility	74	%

The Company recognized a derivative liability for the Temasek Funding Warrant of $19.4 million on July 29, 2015. On December 15, 2015, Temasek exercised the Temasek Funding Warrant for cash of $0.1 million. At the day of exercise, the Temasek Funding Warrant was valued at $18.9 million, which was the fair value of the 12.7 million shares issued upon exercise of the warrant. In February and May 2016, as a result of adjustments to the conversion price of the Tranche I Notes and the Tranche II Notes (see Note 4, "Debt"), the Temasek Funding Warrant became exercisable for an additional 164,169 shares of common stock. Following the issuance by the Company of shares of convertible preferred stock and warrants to purchase common stock in May 2017 and August 2017 (see Note 6, "Stockholders' Deficit), and corresponding adjustments to the conversion price of the Tranche I Notes and Tranche II Notes (see Note 4, "Debt”), the Temasek Funding Warrant became exercisable for an additional 1,125,755 and 600,062 shares of common stock, respectively.

The May 2017 Series A Preferred Stock and Series B Preferred Stock, the August 2017 DSM Offering and the August 2017 Vivo Offering (see Note 6, “Stockholder’s Deficit”) included make whole provisions, which are accounted for as embedded derivatives. Cash and antidilution warrants, classified as freestanding financial instruments, were also issued in conjunction with the financings and are classified as derivative liabilities. The total derivative liability recorded for the May 2017 Warrants, May 2017 Offering make whole provision, August 2017 DSM Offering warrants and make whole provision and August 2017 Vivo Offering was $123.0 million. The value of the embedded and freestanding derivatives at December 31, 2017 was $120.0 million. The Company recorded a gain of $1.1 million in fiscal year 2017 for the change in value and extinguishments of these derivative liabilities. See Note 6, "Stockholders' Deficit” for additional details.

Derivative instruments measured at fair value on a recurring basis as of December 31, 2017 and 2016, and their classification on the consolidated balance sheets are as follows:

December 31, **(In thousands)**	2017	2016
Swap obligation, at fair market value:		
Current portion	$—	$584
Noncurrent portion	—	2,759
Total swap obligation	—	3,343
Freestanding or compound embedded derivative liabilities, at fair value	119,978	4,135
Total derivative liabilities	$119,978	$7,478

Assets and Liabilities Recorded at Carrying Value

Financial Assets and Liabilities

The carrying amounts of certain financial instruments, such as cash equivalents, accounts receivable, accounts payable and accrued liabilities, approximate fair value due to their relatively short maturities and low market interest rates, if applicable. Loans payable, credit facilities and convertible notes are recorded at carrying value, which is representative of fair value at the date of acquisition. The Company estimates the fair value of loans payable and credit facilities using observable market-based inputs (Level 2) and estimates the fair value of convertible notes based on rates currently offered for instruments with similar maturities and terms (Level 3). The carrying amount of the Company's debt at December 31, 2017 was $165.4 million. The fair value of such debt at December 31, 2017 was $156.9 million, and was determined by discounting expected cash flows using the Company's weighted-average cost of capital of 27%.

Cost-method Investment

In April 2017, the Company received 850,115 unregistered shares of SweeGen common stock in satisfaction of the payment obligation of Phyto Tech Corp. (d/b/a Blue California) under the Intellectual Property License and Strain Access Agreement entered into between Blue California and the Company in December 2016. The Company obtained an independent valuation of the shares that established acquisition-date fair value of $3.2 million using an income approach under which cash flows were discounted to present value at 40%.

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4. Debt

December 31, (In thousands)	2017			2016		
	Principal	Unamortized Debt (Discount) Premium	Net	Principal	Unamortized Debt (Discount) Premium	Net
Convertible notes payable						
2015 Rule 144A convertible notes	$37,887	$ (6,872)	$31,015	$40,478	$ (17,712)	$22,766
2014 Rule 144A convertible notes	24,004	(3,170)	20,834	27,404	(5,399)	22,005
December 2016, April 2017, June 2017 and December 2017 convertible notes	5,000	(25)	4,975	10,000	(78)	9,922
August 2013 financing convertible notes	4,009	(2,918)	1,091	13,826	(4,579)	9,247
Fidelity notes	—	—	—	15,309	(326)	14,983
	70,900	(12,985)	57,915	107,017	(28,094)	78,923
Related party convertible notes payable						
August 2013 financing convertible notes	21,711	897	22,608	19,781	2,033	21,814
2014 Rule 144A convertible notes	24,705	(3,784)	20,921	24,705	(7,380)	17,325
R&D note	3,700	(18)	3,682	3,700	(80)	3,620
	50,116	(2,905)	47,211	48,186	(5,427)	42,759
Loans payable and credit facilities						
Senior secured loan facility	28,566	(253)	28,313	28,566	(908)	27,658
Ginkgo notes	12,000	(4,983)	7,017	8,500	—	8,500
Nossa Caixa and Banco Pine notes	—	—	—	11,135	—	11,135
Other loans payable	6,463	(1,277)	5,186	8,305	(1,361)	6,944
Guanfu credit facility	—	—	—	25,000	(5,436)	19,564
Other credit facilities	381	—	381	1,869	—	1,869
	47,410	(6,513)	40,897	83,375	(7,705)	75,670
Related party loans payable						
DSM note	25,000	(8,039)	16,961	—	—	—
February 2016 private placement	2,000	—	2,000	20,000	(1,309)	18,691
Other DSM loan	393	—	393	—	—	—
June and October 2016 private placements	—	—	—	11,000	—	11,000
	27,393	(8,039)	19,354	31,000	(1,309)	29,691
Total debt	$195,819	$ (30,442)	165,377	$269,578	$ (42,535)	227,043
Less: current portion			(56,943)			(59,155)
Long-term debt, net of current portion			$108,434			$167,888

Future minimum payments under the debt agreements as of December 31, 2017 are as follows:

Years Ending December 31, (In thousands)	Convertible Notes	Related Party Convertible Notes	Loans Payable and Credit Facilities	Related Party Loans Payable	Total
2018	$ 11,060	$ 20,835	$36,465	$5,423	$73,783
2019	69,334	35,238	1,704	2,500	108,776
2020	—	—	1,627	2,500	4,127
2021	—	—	1,627	27,500	29,127
2022	—	—	13,417	—	13,417
Thereafter	—	—	2,528	—	2,528
Total future minimum payments[1]	80,394	56,073	57,368	37,923	231,758
Less: amount representing interest[2]	(22,479)	(8,862)	(16,471)	(18,569)	(66,381)
Present value of minimum debt payments	57,915	47,211	40,897	19,354	165,377
Less: current portion	(4,932)	(17,626)	(31,992)	(2,393)	(56,943)
Noncurrent portion of debt	$ 52,983	$ 29,585	$8,905	$16,961	$108,434

(1) Including $5.8 million in 2018 related to the $5 Million Note that, at the Company's election, may be settled in cash or shares, and an aggregate of $25.0 million in 2018 and 2019 that a holder of the Tranche Notes has agreed to convert to common stock at maturity, subject to there being no default under the terms of the debt; see "Maturity Treatment Agreement" below for details.

(2) Including net debt discount of $30.4 million that will be amortized to interest expense under the effective interest method over the term of the debt.

Convertible Notes Payable

2015 Rule 144A Convertible Notes

In October 2015, the Company sold $57.6 million aggregate principal amount of 9.50% convertible senior notes due 2019 (the 2015 144A Notes) to certain qualified institutional buyers in a private placement. Net proceeds from the offering were $54.4 million after payment of offering expenses and placement agent fees, which together are treated as a debt discount and are being amortized over the remaining loan term. The Company used $18.3 million of the net proceeds to repurchase $22.9 million aggregate principal amount of outstanding 2014 144A Notes as discussed below. The 2015 144A Notes bear interest at a rate of 9.50% per year, payable semiannually in arrears on April 15 and October 15 of each year. Interest on the 2015 144A Notes is payable, at the Company's option, entirely in cash or entirely in common stock valued at 92.5% of a market-based price. The Company elected to make the April 15, 2016 and 2017 interest payments in shares of common stock and the October 15, 2016 and 2017 interest payments in cash.

The 2015 144A Notes will mature on April 15, 2019 unless earlier converted or repurchased.

The 2015 144A Notes are convertible into shares of the Company's common stock at a conversion rate of 58.2076 shares per $1,000 principal amount of 2015 144A Notes (which conversion rate is subject to adjustment in certain circumstances), representing an effective conversion price of approximately $17.18 per share as of December 31, 2017. If converted prior to maturity, noteholders are entitled to receive a payment (the Early Conversion Payment) equal to the present value of the remaining scheduled payments of interest on the 2015 144A Notes being converted through April 15, 2019, computed using a discount rate of 0.75%. The Company may make the Early Conversion Payment, at its election, either in cash or, subject to certain conditions, in common stock valued at 92.5% of a market-based price. Through December 31, 2017, the Company has elected to make each Early Conversion Payment in shares of common stock.

In January 2017, the Company issued an additional $19.1 million in aggregate principal amount of 2015 144A Notes (the Additional 2015 144A Notes) in exchange for the cancellation of $15.3 million in aggregate principal amount of outstanding Fidelity Notes, as further described below under “Fidelity Notes,” with the same terms as the 2015 144A Notes; provided, that the aggregate number of shares issued with respect to the Additional 2015 144A Notes (and any other transaction aggregated for such purpose) cannot exceed 3,652,935 shares of common stock (the Additional 2015 144A Notes Exchange Cap) without prior stockholder approval. The exchange was accounted for as an extinguishment of debt, resulting in a $0.1 million gain in the year ended December 31, 2017.

In May 2017, the Company exchanged $3.7 million in aggregate principal amount of 2015 144A Notes for shares of its Series B 17.38% Convertible Preferred Stock and warrants to purchase common stock, as described in more detail in Note 6, “Stockholders’ Deficit”. The exchange was accounted for as an extinguishment of debt, resulting in a $2.0 million loss in the year ended December 31, 2017.

2014 Rule 144A Convertible Notes

In May 2014, the Company sold $75.0 million in aggregate principal amount of 6.50% Convertible Senior Notes due 2019 (the 2014 144A Notes) to qualified institutional buyers in a private placement. The net proceeds from the offering were $72.0 million after payment of initial purchaser discounts and offering expenses, which together are treated as a debt discount and are being amortized over the remaining loan term. The Company used $9.7 million of the net proceeds to repay convertible notes previously issued to an affiliate of Total S.A. (together with its affiliates, Total), representing the amount of 2014 144A Notes purchased by Total. Certain of the Company's affiliated entities (including Total) purchased $24.7 million in aggregate principal amount of 2014 144A Notes. The 2014 144A Notes bear interest at an annual rate of 6.5%, payable semiannually in arrears on May 15 and November 15 of each year in cash. The 2014 144A Notes mature on May 15, 2019, unless earlier converted or repurchased.

The 2014 144A Notes are convertible into shares of the Company's common stock at a conversion rate of 17.8073 shares per $1,000 principal amount of 2014 144A Notes (which conversion rate is subject to adjustment in certain circumstances), representing an effective conversion price of approximately $56.16 per share as of December 31, 2017. See the "Maturity Treatment Agreement" section below for details of the impact of that agreement on the 2014 144A Notes.

In May 2017, the Company exchanged $3.4 million in aggregate principal amount of 2014 144A Notes for shares of its Series B 17.38% Convertible Preferred Stock and warrants to purchase common stock, as described in more detail in Note 6, “Stockholders’ Deficit". The exchange was accounted for as an extinguishment, resulting in a $1.8 million loss for the year ended December 31, 2017.

Maturity Treatment Agreement

In July 2015, the Company entered into an Exchange Agreement (the 2015 Exchange Agreement) with Total and Temasek pursuant to which Temasek exchanged $71.0 million in principal amount of outstanding Tranche Notes and Total exchanged $70.0 million in principal amount of outstanding convertible notes for shares of the Company's common stock at a price of $34.50 per share (2015 Exchange). At the closing of the 2015 Exchange, the Company, Total and Temasek also entered into a Maturity Treatment Agreement dated July 29, 2015, pursuant to which Total

and Temasek agreed to convert any Tranche Notes or 2014 144A Notes held by them that were not canceled in the 2015 Exchange (Remaining Notes) into shares of the Company's common stock in accordance with the terms of such Remaining Notes at or prior to maturity, provided that certain events of default had not occurred with respect to the applicable Remaining Notes. In May 2017, the Company entered into separate letter agreements with each of Total and Temasek, pursuant to which the Company agreed that the Remaining Notes consisting of 2014 144A Notes held by Total ($9.7 million in principal amount as of December 31, 2017) and Temasek ($10.0 million in principal amount as of December 31, 2017) would no longer be subject to mandatory conversion at or prior to the maturity of such Remaining Notes. Accordingly, the Company will be required to pay any portion of such Remaining Notes that remain outstanding at maturity in cash in accordance with the terms of such Remaining Notes. As of December 31, 2017, after giving effect to such letter agreements, Temasek did not hold any Remaining Notes and Total held $21.8 million in principal amount of Remaining Notes (consisting of Tranche Notes). The 2015 Exchange Agreement contains customary terms, covenants and restrictions, including a limit on the Company’s debt of the greater of $200 million or 50% of its consolidated total assets and the Company’s secured debt of the greater of $125 million or 30% of its consolidated total assets, subject to certain exceptions. In addition, the Maturity Treatment Agreement provides that, as long as Total or Temasek holds at least $5 million of Remaining Notes, the Company shall not incur any material debt, prepay any material debt or materially amend any debt.

December 2016, April 2017, June 2017 and December 2017 Convertible Notes

In December 2016, the Company entered into a securities purchase agreement (December 2016 Purchase Agreement) with a private investor (Purchaser) and issued and sold a convertible note in principal amount $10.0 million (the December 2016 Convertible Note) to the Purchaser, resulting in net proceeds to the Company of $9.9 million. The December 2016 Convertible Note was fully repaid in May 2017, and no gain or loss was recorded upon extinguishment.

In April 2017, the Company entered into a securities purchase agreement (April 2017 Purchase Agreement) with the Purchaser relating to the sale of up to an additional $15.0 million aggregate principal amount of convertible notes (the April 2017 Convertible Notes). In April 2017, the Company issued and sold an April 2017 Convertible Note in the principal amount of $7.0 million to the Purchaser, for proceeds to the Company of $6.9 million. This note was fully repaid in May 2017, and a $1.4 million loss was recorded upon extinguishment for the year ended December 31, 2017.

In May 2017, in connection with the Purchaser agreeing to extend the time period for certain obligations of the Company under the April 2017 Purchase Agreement, the Company and the Purchaser entered into an Amendment Agreement (Amendment Agreement) with respect to the December 2016 Purchase Agreement, the December 2016 Convertible Note, the April 2017 Purchase Agreement and the April 2017 Convertible Notes (the Amended Notes). Pursuant to the Amendment Agreement, the Company and the Purchaser agreed, among other things, to (i) reduce the price at which the Company may pay monthly installments under the Amended Notes in common stock to a 20% discount to a market-based price and (ii) reduce the price floor related to any such payment to 70% of a market-based price. No accounting impact was recorded in May 2017.

In June 2017, the Company issued and sold an Amended Note under the April 2017 Purchase Agreement in the principal amount of $3.0 million to the Purchaser, for proceeds to the Company of $3.0 million. This note was fully repaid in August 2017, and a $0.5 million loss was recorded upon extinguishment.

In December 2017, in connection with the Purchaser exercising its right to purchase the remaining Notes under the April 2017 Purchase Agreement, the Company issued and sold an Amended Note under the April 2017 Purchase Agreement in the principal amount of $5.0 million (the $5 Million Note) to the Purchaser, for proceeds to the Company of $5.0 million. In connection with the Purchaser granting certain waivers under the April 2017 Purchase Agreement and the December 2016 Purchase Agreement, the parties agreed to provide for a maturity date of June 1, 2018 for the $5 Million Note. Upon issuance of the $5 Million Note, all of the Notes provided for in the April 2017 Purchase Agreement had been issued and sold. The $5 Million Note is payable in monthly installments, in either cash at 118% of such installment amount or, at the Company’s option, subject to the satisfaction of certain equity conditions, shares of common stock at a discount to the then-current market price, subject to a price floor, as described above. In addition, in the event that the Company elects to pay all or any portion of a monthly installment in common stock, the holder of the $5 Million Note has the right to require that the Company repay in common stock an additional amount of the Amended Notes not to exceed 50% of the aggregate amount by which the dollar-weighted

trading volume of the Company's common stock for all trading days during the applicable installment period exceeds $200,000. The Company has the right to redeem the $5 Million Note for cash in full or in part at any time at a price equal to 118% of the principal amount being redeemed. The $5 Million Note is convertible at the election of the holder into common stock at a conversion price of $28.50 per share as of December 31, 2017 (which conversion price is subject to adjustment in certain circumstances). The conversion of the $5 Million Note and the repayment of the $5 Million Note in common stock is subject to a beneficial ownership limitation of 4.99% (or such other percentage not to exceed 9.99%, provided that any increase will not be effective until 61 days after notice thereof from the holder), and the aggregate number of shares issued with respect to the $5 Million Note (and any other transaction aggregated for such purpose) cannot exceed 3,645,118 shares of common stock without prior stockholder approval. For as long as it holds the $5 Million Note or shares of common stock issued under the $5 Million Note, the holder may not sell any shares of common stock at a price less than the price floor applicable to the installment period with respect to which such shares were issued. The April 2017 Purchase Agreement and the $5 Million Note contain customary terms, covenants and restrictions, including certain events of default after which the $5 Million Note may become due and payable immediately. At December 31, 2017, the principal balance outstanding was $5.0 million.

August 2013 Financing Convertible Notes

In August 2013, the Company entered into a Securities Purchase Agreement (the August 2013 SPA) with Total and Temasek to sell up to $73.0 million in convertible notes in private placements (the August 2013 Financing). The August 2013 SPA provided for the August 2013 Financing to be divided into two tranches, each with differing closing conditions. The Tranche I Notes are due sixty months from the date of issuance (October 16, 2018). Interest accrues on the Tranche I Notes at 5% per six months, compounded semiannually, and is payable in kind by adding to the principal or in cash. Through December 31, 2017, the Company has elected to pay interest on the Tranche I Notes in kind. The Tranche I Notes may be prepaid in full or in part without penalty or premium every six months at the date of payment of the semiannual coupon.

The Tranche II Notes are due sixty months from the date of issuance (January 15, 2019). Interest accrues on the Tranche II Notes at 10% per annum, compounded annually, and is payable in kind by adding to the principal or in cash. Through December 31, 2017, the Company has elected to pay interest on the Tranche II Notes in kind.

The conversion price of the Tranche Notes is $5.2977 per share as of December 31, 2017 (which conversion price is subject to adjustment in certain circumstances, including certain price-based anti-dilution adjustments). The August 2013 SPA and the Tranche Notes contain customary terms, covenants and restrictions, including a limit on the Company’s debt of the greater of $200 million or 50% of its consolidated total assets and the Company’s secured debt of the greater of $125 million or 30% of its consolidated total assets, subject to certain exceptions. The SPA also requires the Company to obtain the consent of the holders of a majority of these notes before completing any change of control transaction or purchasing assets in one transaction or in a series of related transactions in an amount greater than $20.0 million, in each case while the Tranche Notes are outstanding. In addition, the Tranche Notes contain certain events of default after which the Tranche Notes may become due and payable immediately.

Fidelity Notes

In 2012, the Company sold $25.0 million in aggregate principal amount of convertible promissory notes to entities affiliated with Fidelity (the Fidelity Notes) in a private placement. The Fidelity Notes had a March 1, 2017 maturity date, bore interest at 3.0% per annum and had an initial conversion price equal to $106.02 per share of the Company's common stock. In October 2015, as discussed above, the Company issued $57.6 million of 2015 144A Notes and used approximately $8.8 million of the proceeds therefrom to repurchase $9.7 million aggregate principal amount of outstanding Fidelity Notes. In January 2017, the Company issued $19.1 million in aggregate principal amount of its 2015 144A Notes to the holders of the Fidelity Notes in exchange for the cancellation of the $15.3 million of outstanding Fidelity Notes in a private exchange (the Fidelity Exchange), representing an exchange ratio of approximately 1:1.25 (i.e., each $1.00 of Fidelity Notes was exchanged for approximately $1.25 of additional 2015 144A Notes). The Company did not receive any cash proceeds from the Fidelity Exchange. The Fidelity Exchange was accounted for as an extinguishment of debt, and a gain of $0.1 million was recognized during the year ended December 31, 2017.

Related Party Convertible Notes Payable

August 2013 Financing Convertible Notes

Certain of the August 2013 Financing Convertible Notes are held by related parties. See Note 11, "Related Party Transactions" for details.

2014 Rule 144A Convertible Notes

Certain of the 2014 Rule 144A Convertible Notes are held by related parties. See Note 11, "Related Party Transactions" for details.

R&D Note

In March 2016, as a result of the restructuring of the Company's fuels joint venture with Total, Total Amyris BioSolutions B.V., the Company issued to Total an unsecured convertible note (the R&D Note) in the principal amount of $3.7 million, representing the remaining portion of the $105.0 million convertible note facility between the Company and Total initially established in 2012. In February 2017, the Company and Total agreed to extend the maturity of the R&D Note from March 1, 2017 to May 15, 2017. In May 2017, the Company and Total amended the R&D Note to (i) extend the maturity from May 15, 2017 to March 31, 2018, (ii) increase the interest rate from 1.5% to 12.0%, beginning May 16, 2017, and (iii) provide that accrued and unpaid interest will be payable on December 31, 2017 and the maturity date. In March 2018, the Company and Total amended the R&D Note to extend the maturity from March 31, 2018 to May 31, 2018, with accrued and unpaid interest payable on March 31, 2018 and May 31, 2018. The R&D Note is convertible into the Company's common stock, at a conversion price of $46.20 per share as of December 31, 2017 (which conversion price is subject to adjustment in certain circumstances), (i) within 10 trading days prior to maturity, (ii) on a change of control of the Company, and (iii) on a default by the Company. The R&D Note contains customary terms, covenants and restrictions, including a limit on the Company's debt of the greater of $200 million or 50% of its consolidated total assets and the Company's secured debt of the greater of $125 million or 30% of its consolidated total assets, subject to certain exceptions. In addition, the R&D Note contains certain events of default after which the R&D Note may become due and payable immediately.

Loans Payable and Credit Facilities

Senior Secured Loan Facility

In March 2014, the Company entered into a Loan and Security Agreement (LSA) with Hercules Technology Growth Capital, Inc. (Hercules) to make available to the Company a secured loan facility (the Senior Secured Loan Facility) in an initial aggregate principal amount of up to $25.0 million. The LSA was subsequently amended in June 2014, March 2015 and November 2015 to (i) extend additional credit facilities to the Company in an aggregate amount of up to $31.0 million, of which $16.0 million was drawn by the Company, (ii) extend the maturity date of the loans, and (iii) remove, add and/or modify certain covenants and agreements under the LSA. In connection with such amendments, the Company paid aggregate fees of $1.5 million to Hercules.

In June 2016, Hercules transferred and assigned its rights and obligations under the Senior Secured Loan Facility to Stegodon Corporation (Stegodon), an affiliate of Ginkgo Bioworks, Inc. (Ginkgo), and in connection with the execution by the Company and Ginkgo of an initial strategic partnership agreement, the Company received a deferment from Stegodon of all scheduled principal repayments under the Senior Secured Loan Facility, as well as a waiver of a covenant in the LSA requiring the Company to maintain unrestricted, unencumbered cash in defined U.S. bank accounts in an amount equal to at least 50% of the principal amount of the loans then outstanding under the Senior Secured Loan Facility (the Minimum Cash Covenant). In October 2016, in connection with the execution by the Company and Ginkgo of a definitive collaboration agreement (the Ginkgo Collaboration Agreement), the

Company and Stegodon entered into a fourth amendment of the LSA, pursuant to which the parties agreed to (i) extend the maturity date of the Senior Secured Loan Facility, subject to the Company extending the maturity of certain of its other outstanding indebtedness (the Extension Condition), (ii) make the Senior Secured Loan Facility interest-only until maturity, subject to the requirement that the Company apply certain monies received by it under the Ginkgo Collaboration Agreement to repay the amounts outstanding under the Senior Secured Loan Facility, up to a maximum amount of $1 million per month and (iii) waive the Minimum Cash Covenant until the maturity date of the Senior Secured Loan Facility.

In January 2017, the maturity date of the Senior Secured Loan Facility was extended to October 15, 2018 due to the Extension Condition being met as a result of the Fidelity Exchange; see above under "Fidelity Notes" for additional details. This modification of the Senior Secured Loan Facility was accounted for as a troubled debt restructuring with the future undiscounted cash flows being greater than the carrying value of the debt prior to extension. No gain was recorded, and a new effective interest rate was established based on the carrying value of the debt and the revised future cash flows. In addition, in January 2017, in connection with Stegodon granting certain waivers and releases under the LSA in connection with the formation of the Aprinnova JV (as defined below) (see Note 7, "Variable-interest Entities and Unconsolidated Investments"), the Company and Stegodon entered into a fifth amendment of the LSA, pursuant to which the Company agreed to apply additional monies received by it under the Ginkgo Collaboration Agreement towards repayment of the outstanding loans under the Senior Secured Loan Facility, up to a maximum amount of $3 million.

In December 2017, in connection with Stegodon granting waivers of certain covenants under the LSA in connection with the sale of the Company's Brotas production facility to DSM (see Note 13, “Divestiture”), the Company and Stegodon entered into a sixth amendment of the LSA, pursuant to which the parties agreed, among other things, to (i) amend the maturity date of the LSA from October 15, 2018 to July 15, 2018 (the LSA Maturity Date), (ii) require the Company to make principal repayments of $1.3 million in January 2018 and $5.5 million in March 2018, prior to the July 15, 2018 LSA Maturity Date, (iii) remove the requirement that the Company apply certain monies received by the Company under the Ginkgo Collaboration Agreement towards repayment of the outstanding loans under the Senior Secured Loan Facility, and (iv) require the Company to pledge 65% of its equity interest in SMA and 100% of its equity interest in Novvi LLC as security for the loans under the LSA. The sixth amendment of the LSA was accounted for as a troubled debt restructuring. No gain was recorded, and a new effective interest rate was established based on the carrying value of the debt and the revised future cash flows.

On March 30, 2018, the Company and Stegodon amended the Senior Secured Loan Facility to extend the date for a $5.5 million principal payment from March 31, 2018 to May 31, 2018. Under the extension, the interest rate from April 1, 2018 through the date of payment for the $5.5 million principal will be the previously agreed interest rate plus 5.0%.

Certain of the loans under the Senior Secured Loan Facility bear interest at a rate per annum equal to the greater of (i) the prime rate reported in the Wall Street Journal plus 6.25% and (ii) 9.50%, and certain of the loans under the Senior Secured Loan Facility bear interest at a rate per annum equal to the greater of (i) the prime rate reported in the Wall Street Journal plus 5.25% and (ii) 8.5%, in each case payable monthly. The Company may prepay the loans under the Senior Secured Loan Facility in whole at a price equal to 101% of the principal amount plus an end of term charge equal to $3.3 million. In addition, the Company (i) recorded a fee of $425,000 payable to Stegodon during the year ended December 31, 2017 and (ii) agreed to pay a fee of $450,000 to Stegodon on or prior to the maturity date of the Senior Secured Loan Facility, in connection with Stegodon granting certain waivers and releases under the LSA in connection with the formation of the Aprinnova JV; see Note 7, "Variable-interest Entities and Unconsolidated Investments". The fees paid to Stegodon are treated as a debt discount and are being amortized over the remaining loan term. The Senior Secured Loan Facility is secured by first-priority liens on substantially all of the Company's assets, including Company intellectual property. The LSA includes customary terms, covenants and restrictions, including restrictions on the Company’s ability to incur additional debt and liens, subject to certain exceptions. In addition, the LSA contains certain events of default after which the loans thereunder may become due and payable immediately.

Ginkgo Notes

In November 2017, the Company issued an unsecured promissory note in the principal amount of $12.0 million to Ginkgo (the November 2017 Ginkgo Note) in connection with the termination of the Ginkgo Collaboration Agreement, which is described in Note 10, "Significant Revenue Agreements." The November 2017 Ginkgo Note bears interest at 10.5% per annum, payable monthly, and has a maturity date of October 19, 2022. The November 2017 Ginkgo Note represents advanced payments to be made to Ginkgo under the Partnership Agreement entered into in 2017. The Company determined the fair value of the Note to be $6.8 million, which has been recorded as a prepaid

expense. The remaining $5.2 million is treated as a debt discount and will be amortized over the loan term. The November 2017 Ginkgo Note may be prepaid in full without penalty or premium at any time, provided that certain payments have been made under the Company's partnership agreement with Ginkgo. The November 2017 Ginkgo Note contains customary terms, covenants and restrictions, including certain events of default after which the note may become due and payable immediately.

In October 2016, the Company issued and sold a secured promissory note in the principal amount of $8.5 million to Ginkgo. In April 2017, the Company issued a further secured promissory note to Ginkgo, in the principal amount of $3.0 million, in satisfaction of certain payments owed by the Company under the Ginkgo Collaboration Agreement. Each of the notes bore interest at 13.50% per annum, payable at maturity, and had a maturity date of May 15, 2017. The notes were repaid in full at maturity and the security interests relating thereto were terminated, and no gain or loss was realized upon extinguishment.

Nossa Caixa and Banco Pine Notes

In July 2012, Amyris Brasil entered into a Note of Bank Credit and a Fiduciary Conveyance of Movable Goods Agreement (or, together, the July 2012 Bank Agreements) with each of Nossa Caixa Desenvolvimento (Nossa Caixa) and Banco Pine S.A. (Banco Pine).

Under the July 2012 Bank Agreements, the Company could borrow an aggregate of R$52.0 million (U.S. $15.7 million based on the exchange rate as of December 31, 2017) as financing for capital expenditures relating to the Company's manufacturing facility located in Brotas, Brazil. The funds for the loans were provided by the Brazilian Development Bank (BNDES), but were guaranteed by the lenders. Under the July 2012 Bank Agreements, the Company pledged certain farnesene production assets as collateral for loans (separately, the Nossa Caixa Note and the Banco Pine Note) totaling R$52.0 million (U.S. $15.7 million based on the exchange rate as of December 31, 2017). The Company's total acquisition cost for such pledged assets was R$68.0 million (U.S. $20.6 million based on the exchange rate as of December 31, 2017). The loans have a final maturity date of July 15, 2022 and bore interest at 5.5% per annum.

As of December 31, 2017, outstanding balances for Nossa Caixa and Banco Pine Notes were zero.

Other Loans Payable

Salisbury Note: In December 2016, in connection with the Company’s purchase of a manufacturing facility in Leland, North Carolina and related assets (the Glycotech Assets), the Company issued a purchase money promissory note in the principal amount of $3.5 million (the Salisbury Note) in favor of Salisbury Partners, LLC. The Salisbury Note (i) bore interest at 5.0% per year, (ii) had a term of 13 years, (iii) was payable in equal monthly installments of principal and interest beginning on January 1, 2017 and (iv) was secured by a purchase money lien on the Glycotech Assets. In January 2017, the Salisbury Note was repaid with proceeds from the Nikko Note (as defined below) and the security interest relating thereto was terminated. No gain or loss was recorded upon termination, as the Nikko Note was substantially similar, and the Salisbury Note was considered to be exchanged for the Nikko Note.

Nikko Note: In December 2016, in connection with the Company's formation of its cosmetics joint venture (the Aprinnova JV) with Nikko Chemicals Co., Ltd. (Nikko), as discussed in Note 7, "Variable-interest Entities and Unconsolidated Investments," Nikko made a loan to the Company in the principal amount of $3.9 million and the Company issued a promissory note (the Nikko Note) to Nikko in an equal principal amount. The proceeds of the Nikko Note were used to satisfy the Company's remaining liabilities related to the Company's purchase of the Glycotech Assets, including liabilities under the Salisbury Note. The Nikko Note (i) bears interest at 5% per year, (ii) has a term of 13 years, (iii) is payable in equal monthly installments of principal and interest beginning on January 1, 2017 and (iv) is secured by a first-priority lien on 10% of the Aprinnova JV interests owned by the Company. In

addition, (i) the Company repaid $400,000 of the Nikko Note in equal monthly installments of $100,000 as required on January 1, 2017, February 1, 2017, March 1, 2017 and April 1, 2017 and (ii) the Company is required to repay the Nikko Note with any profits distributed to the Company by the Aprinnova JV, beginning with the distributions for the fourth fiscal year of the Aprinnova JV, until the Nikko Note is fully repaid. The Nikko Note may be prepaid in full or in part at any time without penalty or premium. The Nikko Note contains customary terms and provisions, including certain events of default after which the Nikko Note may become due and payable immediately.

Aprinnova Working Capital Loans: In February 2017, in connection with the formation of the Aprinnova JV, Nikko made a working capital loan to the Aprinnova JV in the principal amount of $1.5 million and received a promissory note from the Aprinnova JV in an equal amount (the First Aprinnova Note). The First Aprinnova Note was repayable in $375,000 installments plus accrued interest on May 1, 2017, August 1, 2017, November 1, 2017 and February 1, 2018. The First Aprinnova Note was fully repaid in February 2018. In August 2017, Nikko made a second working capital loan to the Aprinnova JV in the principal amount of $1.5 million and received a promissory note from the Aprinnova JV in an equal amount (the Second Aprinnova Note). The Second Aprinnova Note is payable in full on July 31, 2018, with interest payable quarterly. Both notes bear interest at 2.75% per annum.

Guanfu Credit Facility

In October 2016, the Company and Guanfu Holding Co., Ltd. (Guanfu), an existing commercial partner of the Company, entered into a credit agreement to make available to the Company an unsecured credit facility (the Guanfu Credit Facility) in an aggregate principal amount of up to $25.0 million; in connection therewith, the Company granted to Guanfu the global exclusive purchase right with respect to a certain Company product. On December 31, 2016, the Company borrowed the full amount under the Guanfu Credit Facility and issued to Guanfu a note in the principal amount of $25.0 million (the Guanfu Note). The Guanfu Note had a term of five years and accrued interest at 10% per annum, payable quarterly beginning March 31, 2017. In December 2017, the Company repaid the Guanfu Note in full with the proceeds of the DSM Note (as defined below).

Other Credit Facilities

FINEP Credit Facility: In November 2010, the Company entered into a credit facility with Financiadora de Estudos e Projetos (FINEP Credit Facility). The FINEP Credit Facility was extended to partially fund expenses related to the Company's research and development project on sugarcane-based biodiesel and provided for loans of up to an aggregate principal amount of R$6.4 million (U.S. $1.9 million based on the exchange rate as of December 31, 2017). Loaned amounts bore interest at 5% per annum. The Company borrowed R$6.4 million against the credit facility. As of December 31, 2017, the outstanding balance was zero.

BNDES Credit Facility: In December 2011, the Company entered into a credit facility with the Brazilian Development Bank (BNDES Credit Facility) in the amount of R$22.4 million (U.S.6.8 million based on the exchange rate as of December 31, 2017). The BNDES Credit Facility was extended as project financing for a production site in Brazil. Loaned amounts bore interest at 7% per annum. The Company borrowed R$19.1 million against the credit facility and paid the final installment in December 2017.

Related Party Loans Payable

DSM Note

In December 2017, the Company and DSM entered into a credit agreement (the DSM Credit Agreement) to make available to the Company an unsecured credit facility of $25.0 million. On December 28, 2017, the Company borrowed $25.0 million under the DSM Credit Agreement, representing the entire amount available thereunder, and issued a promissory note to DSM in an equal principal amount (the DSM Note). The Company used the proceeds of the amounts borrowed under the DSM Credit Agreement to repay all outstanding principal under the Guanfu Note.

Due to the multiple-element arrangement entered into with DSM, the Company fair valued the DSM Note to determine the arrangement consideration that should be allocated to the DSM Note. The fair value of the DSM Note was discounted using a Company specific weighted average cost of capital rate that resulted in a debt discount of $8.0 million. The debt discount will be amortized over the loan term.

The DSM Note (i) is an unsecured obligation of the Company, (ii) matures on December 31, 2021 and (iii) accrues interest from and including December 28, 2017 at 10% per annum, payable quarterly beginning on December 31, 2017. The DSM Note may be prepaid in full or in part at any time without penalty or premium. In addition, the Company is required to use certain payments received by the Company from DSM under the Value Sharing Agreement (see Note 10, “Significant Revenue Agreements”) to repay amounts outstanding under the DSM Credit Agreement. The DSM Credit Agreement and the DSM Note contain customary terms, covenants and restrictions, including certain events of default after which the DSM Note may become due and payable immediately.

February 2016 Private Placement

In February 2016, the Company issued and sold $20.0 million in aggregate principal amount of promissory notes (the February 2016 Notes), as well as warrants to purchase an aggregate of 190,477 shares of the Company's common stock, exercisable at a price of $0.15 per share as of December 31, 2017 (the February 2016 Warrants), resulting in aggregate proceeds to the Company of $20.0 million, in a private placement to certain existing stockholders of the Company that are affiliated with members of the Company's Board of Directors (the Board): Foris Ventures, LLC (Foris, an entity affiliated with director John Doerr of Kleiner Perkins Caufield & Byers, a current stockholder), which purchased $16.0 million aggregate principal amount of the February 2016 Notes and warrants to purchase 152,381 shares of the Company's common stock; Naxyris S.A. (Naxyris, an investment vehicle owned by Naxos Capital Partners SCA Sicar; director Carole Piwnica is Director of NAXOS UK, which is affiliated with Naxos Capital Partners SCA Sicar, and was designated as a director of the Company by Naxyris), which purchased $2.0 million aggregate principal amount of the February 2016 Notes and warrants to purchase 19,048 shares of the Company's common stock; and Biolding Investment SA (Biolding, a fund affiliated with director HH Sheikh Abdullah bin Khalifa Al Thani, who was designated as a director of the Company by Biolding), which purchased $2.0 million aggregate principal amount of the February 2016 Notes and warrants to purchase 19,048 shares of the Company's common stock.

The February 2016 Notes bear interest at 13.50% per annum and had an initial maturity date of May 15, 2017. In May 2017, the February 2016 Notes purchased by Foris and Naxyris were exchanged for shares of the Company's Series B 17.38% Convertible Preferred Stock and warrants to purchase common stock; see Note 6, "Stockholders' Deficit".

In May 2017, the Company and Biolding amended the February 2016 Note issued to Biolding (the Biolding Note) to extend the maturity of the Biolding Note to November 15, 2017, and on November 13, 2017, the Company and Biolding further amended the Biolding Note to extend maturity to December 31, 2017. The Company paid the Biolding Note in full on January 2, 2018.

The February 2016 Warrants each have five-year terms. The February 2016 Warrants purchased by Naxyris were fully exercised in the year ended December 31, 2017, and a gain of $0.1 million was recorded in earnings. As of December 31, 2017, none of the February 2016 Warrants purchased by Foris or Biolding have been exercised.

June and October 2016 Private Placements

In June and October 2016, the Company issued and sold secured promissory notes to Foris in an aggregate principal amount of $11.0 million (the Foris Notes) in private placements. The Foris Notes bore interest at 13.50% per annum and had a maturity date of May 15, 2017. In May 2017, the Foris Notes were exchanged for shares of the Company's Series B 17.38% Convertible Preferred Stock and warrants to purchase common stock (see Note 6, "Stockholders' Deficit"), and the security interests relating thereto were terminated. The debt exchange for shares did not result in a gain or loss, as the transaction was with a related party.

Letters of Credit

In June 2012, the Company entered into a letter of credit agreement for $1.0 million under which it provided a letter of credit to the landlord for its headquarters in Emeryville, California in order to cover the security deposit on the lease. This letter of credit is secured by a certificate of deposit. Accordingly, the Company has $1.0 million of restricted cash, noncurrent in connection with this arrangement as of December 31, 2017 and 2016.

5. Mezzanine Equity

Mezzanine equity at December 31, 2017 and 2016 is comprised of proceeds from common shares sold on May 10, 2016 to the Bill & Melinda Gates Foundation (the Gates Foundation). On April 8, 2016, the Company entered into a Securities Purchase Agreement with the Gates Foundation, pursuant to which the Company agreed to sell and issue 292,398 shares of its common stock to the Gates Foundation in a private placement at a purchase price per share of $17.10, the average of the daily closing price per share of the Company's common stock on the NASDAQ Stock Market for the twenty consecutive trading days ending on April 7, 2016, for aggregate proceeds to the Company of approximately $5.0 million (the Gates Foundation Investment). The Securities Purchase Agreement includes customary representations, warranties and covenants of the parties.

In connection with the entry into the Securities Purchase Agreement, on April 8, 2016, the Company and the Gates Foundation entered into a Charitable Purposes Letter Agreement, pursuant to which the Company agreed to expend an aggregate amount not less than the amount of the Gates Foundation Investment to develop a yeast strain that produces artemisinic acid and/or amorphadiene at a low cost and to supply such artemisinic acid and amorphadiene to companies qualified to convert artemisinic acid and amorphadiene to artemisinin for inclusion in artemisinin combination therapies used to treat malaria commencing in 2017. The Company is currently conducting the project. If the Company defaults in its obligation to use the proceeds from the Gates Foundation Investment as set forth above or defaults under certain other commitments in the Charitable Purposes Letter Agreement, the Gates Foundation will have the right to request that the Company redeem, or facilitate the purchase by a third party of, the Gates Foundation Investment shares then held by the Gates Foundation at a price per share equal to the greater of (i) the closing price of the Company's common stock on the trading day prior to the redemption or purchase, as applicable, or (ii) an amount equal to $17.10 plus a compounded annual return of 10%.

6. Stockholders' Deficit

May 2017 Offerings

In May 2017, the Company issued and sold an aggregate of 22,140 shares of Series A Preferred Stock, 70,904 shares of Series B Preferred Stock, and warrants to purchase an aggregate of 7,384,190 shares of common stock at an exercise price of $7.80 per share, warrants to purchase an aggregate of 7,384,190 shares of common stock at an exercise price of $9.30 per share, and warrants to purchase a number of shares of common stock sufficient to provide full-ratchet anti-dilution protection with respect to the effective price paid for the common stock underlying the Series A Preferred Stock and Series B Preferred Stock (collectively, the May 2017 Warrants) in separate offerings, certain of which were registered under the Securities Act or others of which were private placements (collectively, the May 2017 Offerings).

The net proceeds to the Company from the May 2017 Offerings were $50.7 million after payment of offering expenses and placement agent fees. The Series A Preferred Stock and May 2017 Warrants relating thereto were sold to the purchasers thereof in exchange for aggregate cash consideration of $22.1 million, and the Series B Preferred Stock and May 2017 Warrants relating thereto were sold to the purchasers thereof in exchange for (i) aggregate cash consideration of $30.7 million and (ii) the cancellation of $40.2 million of outstanding indebtedness (including accrued interest thereon) owed by the Company to certain purchasers, of which $33.1 million was from related parties, as further described below.

Series A Preferred Stock

Each share of Series A Preferred Stock has a stated value of $1,000 and is convertible at any time, at the option of the holder, into common stock at a conversion price of $17.25 per share (the Preferred Stock Conversion Rate). The Preferred Stock Conversion Rate is subject to adjustment in the event of any dividends or distributions of common stock, or any stock split, reverse stock split, recapitalization, reorganization or similar transaction. If not previously converted at the option of the holder, each share of Series A Preferred Stock automatically converted on October 9, 2017, the 90th day following the date that the Company announced that Stockholder Approval was obtained and effected, subject to the May 2017 Offerings Beneficial Ownership Limitation (as defined below).

Dividends, at a rate per year equal to 17.38% of the stated value of the Series A Preferred Stock, will be payable semiannually from the issuance of the Series A Preferred Stock until the tenth anniversary of the date of issuance, on each October 15 and April 15, beginning October 15, 2017, on a cumulative basis, at the Company's option, in cash, out of any funds legally available for the payment of dividends, or, subject to the satisfaction of certain conditions, in

Common Stock at the Preferred Stock Conversion Rate, or a combination thereof. In addition, upon the conversion of the Series A Preferred Stock prior to the tenth anniversary of the date of issuance, the holders of the Series Preferred A Stock shall be entitled to a payment equal to $1,738 per $1,000 of stated value of the Series A Preferred Stock, less the amount of all prior semiannual dividends paid on such converted Series A Preferred Stock prior to the relevant conversion date (the Make-Whole Payment), at the Company's option, in cash, out of any funds legally available for the payment of dividends, or, subject to the satisfaction of certain conditions, in common stock at the Preferred Stock Conversion Rate, or a combination thereof. If the Company elects to pay any dividend in the form of cash, it shall provide each holder with notice of such election not later than the first day of the month of prior to the applicable dividend payment date.

Unless and until converted into common stock in accordance with its terms, the Series A Preferred Stock has no voting rights, other than as required by law or with respect to matters specifically affecting the Series A Preferred Stock.

Upon any liquidation, dissolution or winding-up of the Company, the holders of the Series A Preferred Stock shall be entitled to receive out of the assets of the Company the same amount that a holder of Common Stock would receive if the Series A Preferred Stock were fully converted to common stock immediately prior to such liquidation, dissolution or winding-up (without regard to whether such Series A Preferred Stock is convertible at such time), which amount shall be paid *pari passu* with all holders of Common Stock.

The conversion of the Series A Preferred Stock is subject to a beneficial ownership limitation of 4.99% (or such other percentage not to exceed 9.99%, provided that any increase will not be effective until 61 days after notice thereof by the holder) of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock issuable upon conversion of such Series A Preferred Stock (the May 2017 Offerings Beneficial Ownership Limitation). In addition, prior to obtaining the July 2017 Stockholder Approval (as defined below), the aggregate number of shares issued with respect to the Series A Preferred Stock (and any other transaction aggregated for such purpose) could not exceed 3,792,778 shares of common stock (the May 2017 Exchange Cap).

The Series A Preferred Stock is classified as permanent equity, as the Company controls all actions or events required to settle the optional and mandatory conversion feature in shares. The Make-Whole Payment was determined to be an embedded derivative requiring bifurcation and separate recognition as a derivative liability recognized at its fair value as of the issuance date with subsequent changes in fair value recorded in earnings until the Series A Preferred Stock is converted into common stock and the Make-Whole Payment is paid or until the Make-Whole Payment is paid through declared dividends or cash. A derivative liability was recognized at fair value on the date of issuance for the Make-Whole Payment in the amount of $11.0 million. The Series A Preferred Stock also contains a beneficial conversion feature which was recognized up to the amount of $0.6 million of proceeds allocated to the preferred stock. Net proceeds allocated to the Series A Preferred Stock were $0.

As of December 31, 2017, 22,140 shares of Series A Preferred Stock have been converted into common stock (with the Make-Whole Payment in each case being made in the form of common stock) and zero shares of Series A Preferred Stock were outstanding. For the year ended December 31, 2017, the Company recognized a gain of $10.5 million for the reduction in fair value of the derivative liabilities in connection with the 22,140 shares of Series A Preferred Stock converted into common stock.

Series B Preferred Stock

The Series B Preferred Stock has substantially identical terms to the Series A Preferred Stock, except that (i) the conversion of the Series B Preferred Stock was subject to the July 2017 Stockholder Approval and (ii) the May 2017 Offerings Beneficial Ownership Limitation does not apply to DSM. The Series B Preferred Stock is classified as permanent equity at December 31, 2017, which is a change from the mezzanine classification at June 30, 2017. As described in more detail below under “July 2017 Stockholder Approval,” in July 2017 the Company’s stockholders approved removing a restriction preventing the Series B Preferred Stock issued in the May 2017 Offerings from being convertible into common stock. As a result of the July 2017 Stockholder Approval, the Company now controls all

actions or events required to settle an optional or mandatory conversion feature in shares and has reclassified $12.8 million from mezzanine to permanent equity.

The investors that purchased shares of the Series B Preferred Stock included related parties affiliated with members of the Board: Foris exchanged an aggregate principal amount of $27.0 million of indebtedness, plus accrued interest thereon, for 30,729 shares of Series B Preferred Stock and May 2017 Warrants to purchase 4,877,386 shares of Common Stock and Naxyris exchanged an aggregate principal amount of $2.0 million of indebtedness, plus accrued interest thereon, for 2,333 shares of Series B Preferred Stock and May 2017 Warrants to purchase 370,404 shares of common stock. The fair value of the Series B Preferred Stock, embedded make whole payment and related warrants exceeded the carrying value of the related party debt and accrued interest exchanged by $8.6 million which was recorded as a reduction to Additional Paid in Capital and considered a deemed dividend, increasing net loss attributable to Amyris, Inc. common stockholders.

The investors that purchased shares of the Series B Preferred Stock also included non-related party holders of the Company's 2014 144A Notes and 2015 144A Notes. These investors exchanged all or a portion of their holding of such indebtedness, including accrued interest thereon, representing an aggregate of $3.4 million of 2014 144A Notes and $3.7 million of 2015 144A Notes, for Series B Preferred Stock and May 2017 Warrants in the May 2017 Offerings. The fair value of the Series B Preferred Stock, embedded make whole payment and related warrants exceeded the carrying value of the debt and accrued interest exchanged by $1.9 million, which was recognized as a loss on extinguishment of debt in other income (expense).

Upon the closing of the May 2017 Offerings, all of such exchanged indebtedness was canceled and the agreements relating thereto, including any note purchase agreements or unsecured or secured promissory notes (including any security interest relating thereto), were terminated, except to the extent such investors or other investors retain a portion of such indebtedness.

The Series B Preferred Stock issued to DSM in the May 2017 Offerings contains a contingent beneficial conversion feature that was recognized in the three months ending September 30, 2017 upon the July 2017 Stockholder Approval, which eliminated the contingency. As a result, $0.6 million was recorded as a reduction to Additional Paid in Capital and was considered a deemed dividend, increasing net loss attributable to Amyris, Inc. common stockholders. The conversion feature (the right to negotiate the Second Tranche Funding Option) is not a separate unit of account requiring bifurcation.

As of December 31, 2017, 86,691 shares of Series B Preferred Stock (including the Series B Preferred Stock issued in the August 2017 DSM Offering) had been converted into common stock (with the Make-Whole Payment in each case being made in the form of common stock) and 9,213 shares of Series B Preferred Stock were outstanding. A derivative liability was recognized at fair value on the date of issuance for the make whole payment in the amount of $34.7 million. Changes in the fair value of this derivative from the date of issuance through December 31, 2017 have been recorded in earnings. Issuance costs of $1.2 million were netted against the proceeds. Additional issuance costs of $0.2 million were expensed as debt extinguishment costs for debt that was exchanged in the May 2017 Offerings. For the year ended December 31, 2017, the Company recognized a gain of $26.7 million for the reduction in fair value of the derivative liabilities in connection with the 86,691 shares of Series B Preferred Stock converted into common stock.

May 2017 Warrants

The Company issued to each investor in the May 2017 Offerings warrants to purchase a number of shares of common stock equal to 100% of the shares of common stock into which such investor's shares of Series A Preferred Stock or Series B Preferred Stock were initially convertible (including shares of common stock issuable as payment of dividends or the Make-Whole Payment, assuming that all such dividends and the Make-Whole Payment are made in common stock), representing warrants to purchase 14,768,380 shares of common stock in the aggregate for all investors (collectively, the May 2017 Cash Warrants). The exercise price of the May 2017 Cash Warrants is subject to standard adjustments as well as full-ratchet anti-dilution protection for any issuance by the Company of equity or equity-linked securities during the three-year period following the issuance of such warrants (the May 2017 Dilution Period) at a per share price less than the then-current exercise price of the May 2017 Cash Warrants, subject to certain exceptions. As of December 31, 2017, the exercise prices of the May 2017 Cash Warrants were $4.40 per share. As of December 31, 2017, no May 2017 Cash Warrants had been exercised.

In addition, the Company issued to each investor a warrant, with an exercise price of $0.0015 per share as of December 31, 2017 (collectively, the May 2017 Dilution Warrants), to purchase a number of shares of common stock

sufficient to provide the investor with full-ratchet anti-dilution protection for any issuance by the Company of equity or equity-linked securities during the May 2017 Dilution Period at a per share price less than $6.30, the effective per share price paid by the investors for the shares of common stock issuable upon conversion of their Series A Preferred Stock or Series B Preferred Stock (including shares of common stock issuable as payment of dividends or the Make-Whole Payment, assuming that all such dividends and the Make-Whole Payment are made in common stock) subject to certain exceptions. As of December 31, 2017, the May 2017 Dilution Warrants were exercisable for an aggregate of 6,377,466 shares, of which 3,103,278 were exercised, resulting in a $9.6 million reduction in the derivative liabilities.

The May 2017 Warrants each have a term of five years from the date such warrants initially became exercisable upon the receipt and effectiveness of the July 2017 Stockholder Approval. The exercise of the May 2017 Warrants (other than the May 2017 Warrants held by DSM) is subject to the May 2017 Offerings Beneficial Ownership Limitation. The May 2017 Cash Warrants are freestanding financial instruments that are accounted for as derivative liabilities and recognized at their fair value on the date of issuance of $39.5 million. As of December 31, 2017, the fair value of the May 2017 Cash Warrants was $34.1 million based on an independent third-party appraisal using Monte Carlo simulation and Black-Scholes-Merton option value approaches. For the year ended December 31, 2017, the Company recorded a gain of $5.4 million to reflect change in fair value of the May 2017 Cash Warrants. Subsequent changes to the fair value of the May 2017 Cash Warrants will continue to be recorded in earnings until the warrants are exercised or expire in July 2022.

The full-ratchet anti-dilution protection of the May 2017 Cash Warrants are also freestanding financial instruments that have been accounted for as derivative liabilities and recognized at their fair value on the date of issuance of $4.4 million. As of December 31, 2017, the fair value of the full-ratchet anti-dilution protection feature of the May 2017 Cash Warrants was $40.6 million. For the year ended December 31, 2017, the Company recorded a loss of $45.7 million to reflect change in fair value of the derivative liability. Future changes in fair value of the derivative liability will continue to be recorded in earnings until the warrants are exercised or expire in July 2022.

July 2017 Stockholder Approval

In connection with the May 2017 Offerings, the Company agreed to solicit from its stockholders (i) any approval required by the rules and regulations of the NASDAQ Stock Market, including without limitation for the issuance of common stock upon conversion of the Series A Preferred Stock in excess of the May 2017 Exchange Cap, upon conversion of the Series B Preferred Stock and upon exercise of the May 2017 Warrants (the NASDAQ Approval) and (ii) approval to effect the Reverse Stock Split (collectively, the July 2017 Stockholder Approval) at an annual or special meeting of stockholders to be held on or prior to July 10, 2017, and to use commercially reasonable efforts to secure the July 2017 Stockholder Approval. The Reverse Stock Split was approved by the Company's stockholders in May 2017 and the NASDAQ Approval was obtained on July 7, 2017.

August 2017 DSM Offering

On August 7, 2017, the Company issued and sold the following securities to DSM in a private placement (the August 2017 DSM Offering):

- 25,000 shares of Series B Preferred Stock (the August 2017 DSM Series B Preferred Stock) at a price of $1,000 per share;
- a warrant to purchase 3,968,116 shares of common stock at an exercise price of $6.30 per share expiring in five years (August 2017 DSM Cash Warrant); and
- the August 2017 DSM Dilution Warrant (as described below).

Net proceeds to the Company were $25.9 million after payment of offering expenses and the allocation of total fair value received to the elements in the arrangement.

The exercise price of the August 2017 DSM Cash Warrant is subject to standard adjustments as well as full-ratchet anti-dilution protection for any issuance by the Company of equity or equity-linked securities during the three-year period following August 7, 2017 (the DSM Dilution Period) at a per share price less than the then-current exercise price of the August 2017 DSM Cash Warrant, subject to certain exceptions.

The August 2017 DSM Dilution Warrant allows DSM to purchase a number of shares of common stock sufficient to provide DSM with full-ratchet anti-dilution protection for any issuance by the Company of equity or equity-linked securities during the DSM Dilution Period at a per share price less than $6.30, the effective per share price paid by DSM for the shares of common stock issuable upon conversion of its Series B Preferred Stock (including shares of common stock issuable as payment of dividends or the Make-Whole Payment (as defined below), assuming that all such dividends and the Make-Whole Payment are made in common stock), subject to certain exceptions and subject to a price floor of $0.10 per share (the Dilution Floor). The August 2017 DSM Dilution Warrant expires five years from the date it is initially exercisable.

The effectiveness of the anti-dilution adjustment provision of the August 2017 DSM Cash Warrant and the exercise of the August 2017 DSM Dilution Warrant are subject to the August 2017 Stockholder Approval (as defined below). As of December 31, 2017, the August 2017 DSM Cash Warrant had not been exercised for any shares and the August 2017 DSM Dilution Warrant was not exercisable for any shares.

In connection with the August 2017 DSM Offering, the Company also agreed that, subject to certain exceptions, it would not (i) issue any shares of common stock or securities convertible into or exercisable or exchangeable for common stock prior to October 31, 2017, (ii) effect any issuance of securities involving a variable rate transaction until May 11, 2018 or (iii) issue any shares of common stock or securities convertible into or exercisable or exchangeable for common stock at a price below the Dilution Floor without DSM's consent.

In connection with the August 2017 DSM Offering, the Company and DSM also entered into an amendment to the stockholder agreement dated May 11, 2017 (the DSM Stockholder Agreement) between the Company and DSM (the Amended and Restated DSM Stockholder Agreement). Under the DSM Stockholder Agreement, DSM was granted the right to designate one director selected by DSM, subject to certain restrictions and a minimum beneficial ownership level of 4.5%, to the Board. Furthermore, DSM has the right to purchase additional shares of capital stock of the Company in connection with a sale of equity or equity-linked securities by the Company in a capital raising transaction for cash, subject to certain exceptions, to maintain its proportionate ownership percentage in the Company. Pursuant to the DSM Stockholder Agreement, DSM agreed not to sell or transfer any of the Series B Preferred Stock or warrants purchased by DSM in the May 2017 Offerings (as defined below), or any shares of common stock issuable upon conversion or exercise thereof, other than to its affiliates, without the consent of the Company through May 2018 and to any competitor of the Company thereafter. DSM also agreed that, subject to certain exceptions, until three months after there is no DSM director on the Board, DSM will not, without the prior consent of the Board, acquire common stock or rights to acquire common stock that would result in DSM beneficially owning more than 33% of the Company's outstanding voting securities at the time of acquisition. Under the DSM Stockholder Agreement, the Company agreed to use its commercially reasonable efforts to register, via one or more registration statements filed with the Securities and Exchange Commission (the SEC) under the Securities Act of 1933, as amended (the Securities Act), the shares of common stock issuable upon conversion or exercise of the securities purchased by DSM in the May 2017 Offerings. The Amended and Restated DSM Stockholder Agreement provides that (i) DSM has the right to designate a second director to the Board, subject to certain restrictions and a minimum beneficial ownership level of 10%, and (ii) the shares of common stock issuable upon conversion or exercise of the securities purchased by DSM in the August 2017 DSM Offering are (a) entitled to the registration rights provided for in the DSM Stockholder Agreement and (b) subject to the transfer restrictions set forth in the DSM Stockholder Agreement.

In addition, pursuant to the Amended and Restated DSM Stockholder Agreement, the Company and DSM agreed to negotiate in good faith regarding an agreement concerning the development of certain products in the Health and Nutrition field and, in the event that the parties did not reach such agreement prior to 90 days after the closing of the August 2017 DSM Offering (the August 2017 DSM Closing), (a) certain exclusive negotiating rights granted to DSM in connection with the entry into the DSM Stockholder Agreement would expire and (b) on the first anniversary of the August 2017 DSM Closing and each subsequent anniversary thereof, the Company would make a $5.0 million cash payment to DSM, provided that the aggregate amount of such payments would not exceed $25.0 million. In September 2017, the Company and DSM entered into such agreement, and in connection therewith an intellectual

property escrow agreement relating to certain intellectual property licenses granted by the Company to DSM upon the August 2017 DSM Closing became effective.

In connection with the August 2017 DSM Offering and its $25.9 million in net proceeds, the Company also entered into a separate intellectual property license with DSM for consideration of $9.0 million in cash, which DSM remitted to the Company on October 28, 2017, and a credit letter (the DSM Credit Letter) to be applied against future collaboration and value share payments owed by DSM to the Company beginning in 2018. The DSM Credit Letter had a fair value of $7.1 million and was recorded as deferred revenue on the transaction date. The total fixed consideration of $34.0 million was allocated to each of the August 2017 DSM Series B Preferred Stock, Make Whole Payment, August 2017 DSM Cash Warrant, August 2017 DSM Dilution Warrant and DSM Credit Letter at fair value based on level 3 inputs. The August 2017 DSM Series B Preferred Stock was recognized at its fair value on the date of issuance of $5.5 million, net of issuance costs of $0.2 million. The Make-Whole Payment is an embedded derivative and was initially recognized at its fair value of $9.9 million. The August 2017 DSM Cash Warrant and August 2017 DSM Dilution Warrant are freestanding financial instruments and have been recognized at their fair value of $10.6 million. The Make Whole Payment, August 2017 DSM Cash Warrant and August 2017 DSM Dilution Warrant have been reported together as derivative liabilities. Changes in the fair value and extinguishments of these derivatives from the date of issuance through December 31, 2017 have been recorded in earnings, with a $2.4 million gain recorded for the year ended December 31, 2017. As of December 31, all of the preferred shares have been converted into common stock, and no preferred shares under the August 2017 DSM Offering remained outstanding. None of the August 2017 DSM Cash warrant or August 2017 DSM Dilution Warrant have been exercised as of December 31, 2017. The Make Whole Payment compound embedded derivative’s value was reduced to zero at December 31, 2017 due to the conversion of the preferred shares into common. A gain of $9.9 million was recognized in earnings resulting from the Make Whole Payment.

The DSM Credit Letter was reported as deferred revenue and its fair value was determined based on the assumptions that DSM would realize its credit over the next 18 months to 4 years with a 50% to 90% likelihood the credit will be utilized, fully discounted at the Company's 8.6% average cost of debt. After allocating the $34.0 million in fixed consideration to the financial instruments noted above and the DSM Credit Letter, $0.7 million was available for recognition as revenue related to the intellectual property licenses delivered to DSM during the year ended December 31, 2017. The DSM Credit Letter was terminated in December 2017, resulting in the reversal of a $7.3 million liability previously recorded as consideration for the DSM License and Collaboration transaction; see Note 10, “Significant Revenue Agreements” for further details.

August 2017 Vivo Offering

On August 3, 2017, the Company issued and sold the following securities to affiliates of Vivo Capital (collectively, Vivo) in a private placement (the August 2017 Vivo Offering):

- 2,826,711 shares of common stock at a price of $4.26 per share;
- 12,958 shares of Series D Preferred Stock at a price of $1,000 per share;
- warrants to purchase an aggregate of 5,575,118 shares of common stock at an exercise price of $6.39 per share, expiring in five years (the August 2017 Vivo Cash Warrants); and
- the August 2017 Vivo Dilution Warrants (as described below).

Net proceeds to the Company were $24.8 million after payment of offering expenses.

Each share of Series D Preferred Stock has a stated value of $1,000 and, subject to the August 2017 Vivo Offering Beneficial Ownership Limitation (as defined below), is convertible at any time, at the option of the holders, into common stock at a conversion price of $4.26 per share. The Series D Conversion Rate is subject to adjustment in the event of any dividends or distributions of the common stock, or any stock split, reverse stock split, recapitalization, reorganization or similar transaction.

The conversion of the Series D Preferred Stock is subject to a beneficial ownership limitation of 9.99% (the August 2017 Vivo Offering Beneficial Ownership Limitation), which limitation may be waived by the holders on 61 days’ prior notice.

Prior to declaring any dividend or other distribution of its assets to holders of common stock, the Company shall first declare a dividend per share on the Series D Preferred Stock equal to $0.0001 per share. In addition, the Series D Preferred Stock will be entitled to participate with the common stock on an as-converted basis with respect to any dividends or other distributions to holders of common stock. There were no conversions or dividends declared as of December 31, 2017.

Unless and until converted into common stock in accordance with its terms, the Series D Preferred Stock has no voting rights, other than as required by law or with respect to matters specifically affecting the Series D Preferred Stock. The Series D Preferred Stock is classified as permanent equity, as the Company controls all actions or events required to settle the optional conversion feature in shares.

The August 2017 Vivo Cash Warrants and August 2017 Vivo Dilution Warrants are freestanding derivative instruments in connection with the issuance of equity instruments, which have been recorded as derivative liabilities. These warrants have been recognized at their fair value of $13.0 million as determined by management with the assistance of an independent third party appraisal based on level 3 inputs. Changes in the fair value of these derivative liabilities from the date of issuance through December 31, 2017 have been recorded in earnings, with a $3.1 million loss recorded for the year ended December 31, 2017. The remaining $12.0 million in proceeds received was allocated on a relative fair value basis, resulting in $5.5 million of proceeds being allocated to the common stock sold in the August 2017 Vivo Offering and $6.2 million allocated to the Series D Preferred Stock, net of $0.2 million in issuance costs. The Series D Preferred Stock includes a beneficial conversion feature of $5.8 million as the full fair value of the Series D Preferred Stock of $12.0 million was greater than the $6.2 million allocated to the Series D Preferred Stock.

In the event of a Fundamental Transaction, the holders of the Series D Preferred Stock will have the right to receive the consideration receivable as a result of such Fundamental Transaction by a holder of the number of shares of common stock for which the Series D Preferred Stock is convertible immediately prior to such Fundamental Transaction (without regard to whether such Series D Preferred Stock is convertible at such time), which amount shall be paid *pari passu* with all holders of common stock. A Fundamental Transaction is defined in the Certificate of Designation of Preferences, Rights and Limitations relating to the Series D Preferred Stock as any of the following: (i) merger with or consolidation into another legal entity; (ii) sale, lease, license, assignment, transfer or other disposition of all or substantially all of the Company's assets in one or a series of related transactions; (iii) purchase offer, tender offer or exchange offer of the Company's common stock pursuant to which holders of the Company's common stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding common stock; (iv) reclassification, reorganization or recapitalization of the Company's stock; or (v) stock or share purchase agreement that results in another party acquiring more than 50% of the Company's outstanding shares of common stock.

Upon any liquidation, dissolution or winding-up of the Company, the holders of the Series D Preferred Stock shall be entitled to receive out of the assets of the Company the same amount that a holder of common stock would receive if the Series D Preferred Stock were fully converted to common stock immediately prior to such liquidation, dissolution or winding-up (without regard to whether such Series D Preferred Stock is convertible at such time), which amount shall be paid *pari passu* with all holders of common stock.

The exercise price of the August 2017 Vivo Cash Warrants is subject to standard adjustments as well as full-ratchet anti-dilution protection for any issuance by the Company of equity or equity-linked securities during the three-year period following August 3, 2017 (the Vivo Dilution Period) at a per share price less than the then-current exercise price of the August 2017 Vivo Cash Warrants, subject to certain exceptions.

The August 2017 Vivo Dilution Warrants allow Vivo to purchase a number of shares of common stock sufficient to provide Vivo with full-ratchet anti-dilution protection for any issuance by the Company of equity or equity-linked securities during the Vivo Dilution Period at a per share price less than $4.26, the effective per share price paid by Vivo for the shares of common stock issuable upon conversion of the Series D Preferred Stock, subject to certain exceptions and subject to the Dilution Floor. The August 2017 Vivo Dilution Warrants expire five years from the date

they are initially exercisable.

The effectiveness of the anti-dilution adjustment provision of the August 2017 Vivo Cash Warrants and the exercise of the August 2017 Vivo Dilution Warrants were subject to the August 2017 Stockholder Approval (as defined below). As of December 31, 2017, none of the August 2017 Vivo Cash Warrants had been exercised and the August 2017 Vivo Dilution Warrants were not exercisable for any shares.

In connection with the August 2017 Vivo Offering, the Company agreed that it would not issue any shares of common stock or securities convertible into or exercisable or exchangeable for common stock at a price below the Dilution Floor without Vivo's consent.

In connection with the August 2017 Vivo Offering, the Company and Vivo also entered into a Stockholder Agreement (the Vivo Stockholder Agreement) setting forth certain rights and obligations of Vivo and the Company. Pursuant to the Vivo Stockholder Agreement, Vivo will have the right, subject to certain restrictions and a minimum beneficial ownership level of 4.5%, to (i) designate one director selected by Vivo to the Board and (ii) appoint a representative to attend all Board meetings in a nonvoting observer capacity and to receive copies of all materials provided to directors, subject to certain exceptions. Furthermore, Vivo will have the right to purchase additional shares of capital stock of the Company in connection with a sale of equity or equity-linked securities by the Company in a capital raising transaction for cash, subject to certain exceptions, to maintain its proportionate ownership percentage in the Company. Vivo agreed not to sell or transfer any of the shares of common stock, Series D Preferred Stock or warrants purchased by Vivo in the August 2017 Vivo Offering, or any shares of common stock issuable upon conversion or exercise thereof, other than to its affiliates, without the consent of the Company through August 2018 and to any competitor of the Company thereafter. Vivo also agreed that, subject to certain exceptions, until the later of (i) three years from the closing of the August 2017 Vivo Offering and (ii) three months after there is no Vivo director on the Board, Vivo will not, without the prior consent of the Board, acquire common stock or rights to acquire common stock that would result in Vivo beneficially owning more than 33% of the Company's outstanding voting securities at the time of acquisition. Under the Vivo Stockholder Agreement, the Company agreed to use its commercially reasonable efforts to register, via one or more registration statements filed with the SEC under the Securities Act, the shares of common stock purchased in the August 2017 Vivo Offering as well as the shares of common stock issuable upon conversion or exercise of the Series D Preferred Stock and warrants purchased by Vivo in the August 2017 Vivo Offering.

August 2017 Stockholder Approval

The Company has agreed to solicit from its stockholders such approval as may be required by the applicable rules and regulations of the NASDAQ Stock Market with respect to the anti-dilution provisions of the August 2017 DSM Cash Warrant and the August 2017 Vivo Cash Warrants and the exercise of the August 2017 DSM Dilution Warrant and the August 2017 Vivo Dilution Warrants (the August 2017 Stockholder Approval) at an annual or special meeting of stockholders to be held on or prior to the date of the Company's 2018 annual meeting of stockholders (the Stockholder Meeting), and to use commercially reasonable efforts to secure the August 2017 Stockholder Approval. DSM and Vivo may, at their option, upon at least 90 days' prior written notice, require the Company to hold the Stockholder Meeting prior to the Company's 2018 annual meeting of stockholders. If the Company does not obtain the August 2017 Stockholder Approval at the Stockholder Meeting, the Company will call a stockholder meeting every four months thereafter to seek the August 2017 Stockholder Approval until the earlier of the date the August 2017 Stockholder Approval is obtained or the August 2017 DSM Cash Warrant, the August 2017 Vivo Cash Warrants, the August 2017 Vivo Dilution Warrants and the August 2017 DSM Dilution Warrant are no longer outstanding. In addition, until the August 2017 Stockholder Approval has been obtained and deemed effective, the Company may not issue any shares of common stock or securities convertible into or exercisable or exchangeable for common stock if such issuance would have triggered the anti-dilution adjustment provisions in the August 2017 DSM Cash Warrant, the August 2017 DSM Dilution Warrant, the August 2017 Vivo Cash Warrants or the August 2017 Vivo Dilution Warrants (if the August 2017 Stockholder Approval had been obtained prior to such issuance) without the prior written consent of DSM and Vivo, respectively.

Warrants in Connection with May and August 2017 Offerings

Warrant activity and balances in connection with the May and August 2017 Offerings are as follows:

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	Issued	Exercised	Warrants Outstanding at 12/31/2017
May and August 2017 Cash Warrants			
May 2017	14,768,380	—	14,768,380
August 2017	9,543,234	—	9,543,234
	24,311,614	—	24,311,614
May and August 2017 Dilution Warrants			
May 2017	6,377,466	(3,103,278)	3,274,188
August 2017	—	—	—
	6,377,466	(3,103,278)	3,274,188
	30,689,080	(3,103,278)	27,585,802

May 2017 Exchange of Common Stock for Series C Convertible Preferred Stock

In May 2017, Foris and Naxyris agreed to exchange (the May 2017 Exchange) their outstanding shares of common stock, representing a total of 1,394,706 shares, for 20,921 shares of the Company's Series C Convertible Preferred Stock, par value $0.0001 per share (the Series C Preferred Stock) in a private exchange. In addition, Foris and Naxyris agreed not to convert any of their outstanding convertible promissory notes, warrants or any other equity-linked securities of the Company until the July 2017 Stockholder Approval had been obtained.

Each share of Series C Preferred Stock has a stated value of $1,000 and would automatically convert into common stock, at a conversion price of $15.00 per share (the Series C Conversion Rate), upon the approval by the Company's stockholders and implementation of a reverse stock split.

The Series C Preferred Stock is entitled to participate with the common stock on an as-converted basis with respect to any dividends or other distributions to holders of common stock.

The Series C Preferred Stock shall vote together as one class with the common stock on an as-converted basis, and shall also vote with respect to matters specifically affecting the Series C Preferred Stock.

Upon any liquidation, dissolution or winding-up of the Company, the holders of the Series C Preferred stock shall be entitled to receive out of the assets of the Company an amount equal to the greater of (i) the par value of each share of Series C Preferred Stock, plus any accrued and unpaid dividends or other amounts due on such Series C Preferred Stock, prior to any distribution or payment to the holders of common stock or (ii) the amount that a holder would receive if the Series C Preferred Stock were fully converted to common stock immediately prior to such liquidation, dissolution or winding-up (without regard to whether such Series C Preferred Stock is convertible at such time), which

amount shall be paid *pari passu* with all holders of Common Stock.

The shares of Series C Preferred Stock automatically converted to common stock on June 6, 2017 in connection with the effectiveness of the Reverse Stock Split. The Company accounted for the Series C Preferred Stock and the May 2017 Exchange as a non-monetary transaction that had no impact on the consolidated financial statements.

Exchange Agreement Warrants

Under the 2015 Exchange Agreement, Total and Temasek received the following warrants at the closing of the 2015 Exchange:

- Total received a warrant to purchase 1,261,613 shares of common stock (the Total Funding Warrant), which warrant had been fully exercised as of December 31, 2017.

- Total received a warrant to purchase 133,334 shares of the Company's common stock that would only be exercisable if the Company failed, as of March 1, 2017, to achieve a target cost per liter to manufacture farnesene (the Total R&D Warrant). As of March 1, 2017, the Company had not achieved the target cost per liter to manufacture farnesene provided in the Total R&D Warrant, and as a result, on March 1, 2017 the Total R&D Warrant became exercisable in accordance with its terms. As of December 31, 2017, the Total R&D Warrant had not been exercised.
- Temasek received a warrant to purchase 978,525 shares of common stock, which warrant had been fully exercised as of December 31, 2017.
- Temasek received a warrant exercisable for that number of shares of common stock equal to 58,690 multiplied by a fraction equal to the number of shares for which Total exercises the Total R&D Warrant divided by 133,334 (the Temasek R&D Warrant). As of December 31, 2017, the Temasek R&D Warrant was not exercisable for any shares of common stock.
- Temasek received a warrant exercisable for that number of shares of common stock equal to (1) (A) the sum of (i) the number of shares for which Total exercises the Total Funding Warrant plus (ii) the number of any additional shares for which the outstanding Tranche Notes may become exercisable as a result of a reduction in their conversion price as a result of and/or subsequent to the 2015 Exchange plus (iii) the number of additional shares in excess of 133,334, if any, for which the Total R&D Warrant becomes exercisable, multiplied by (B) a fraction equal to 30.6% divided by 69.4% plus (2) (A) the number of any additional shares for which the outstanding 2014 144A Notes may become exercisable as a result of a reduction in their conversion price multiplied by (B) a fraction equal to 13.3% divided by 86.7% (the Temasek Funding Warrant). As of December 31, 2017, the Temasek Funding Warrant had been exercised with respect to 846,683 shares of common stock and was exercisable for 1,889,986 shares of common stock.

The warrants issued to Total in the 2015 Exchange each have five-year terms, and the warrants issued to Temasek in the 2015 Exchange each have ten-year terms. All of such warrants have an exercise price of $0.15 per share as of December 31, 2017.

In addition to the grant of the warrants in the 2015 Exchange, a warrant to purchase 66,667 shares of common stock issued by the Company to Temasek in October 2013 in conjunction with a prior convertible debt financing became exercisable in full upon the completion of the 2015 Exchange. As of December 31, 2017 and 2016, such warrant had been fully exercised.

July 2015 PIPE Warrants

In July 2015, the Company entered into a securities purchase agreement with certain purchasers, including entities affiliated with members of the Board, under which the Company agreed to sell 1,068,379 shares of common stock at a price of $23.40 per share, for aggregate proceeds to the Company of $25.0 million. The sale of common stock was completed on July 29, 2015. In connection with such sale, the Company granted to each of the purchasers a warrant, exercisable at a price of $0.15 per share as of December 31, 2017, to purchase of a number of shares of common stock equal to 10% of the shares of common stock purchased by such investor. The exercisability of the warrants was subject to stockholder approval, which was obtained on September 17, 2015. As of December 31, 2017, such warrants had been exercised with respect to 25,643 shares of common stock and warrants with respect to 81,197 shares of common stock were outstanding.

At Market Issuance Sales Agreement

On March 8, 2016, the Company entered into an At Market Issuance Sales Agreement (the ATM Sales Agreement) with FBR Capital Markets & Co. and MLV & Co. LLC (the Agents) under which the Company may issue and sell shares of its common stock having an aggregate offering price of up to $50.0 million (the ATM Shares) from time to time through the Agents, acting as its sales agents, under the Company's Registration Statement on Form S-3 (File No. 333-203216), effective April 15, 2015. Sales of the ATM Shares through the Agents, if any, will be made by any method that is deemed an "at the market offering" as defined in Rule 415 under the Securities Act, including by means of ordinary brokers' transactions at market prices, in block transactions, or as otherwise agreed by the Company and the Agents. Each time that the Company wishes to issue and sell ATM Shares under the ATM Sales Agreement, the Company will notify one of the Agents of the number of ATM Shares to be issued, the dates on which such sales are anticipated to be made, any minimum price below which sales may not be made and other sales parameters as the Company deems appropriate. The Company will pay the designated Agent a commission rate of up to 3.0% of the gross proceeds from the sale of any ATM Shares sold through such Agent as agent under the ATM Sales Agreement. The ATM Sales Agreement contains customary terms, provisions, representations and warranties. The ATM Sales Agreement includes no commitment by other parties to purchase shares the Company offers for sale.

During the years ended December 31, 2017 and December 31, 2016, the Company did not sell any shares of common stock under the ATM Sales Agreement. As of December 31, 2017, $50.0 million remained available for future sales under the ATM Sales Agreement.

Evergreen Shares for 2010 Equity Incentive Plan and 2010 Employee Stock Purchase Plan

In January 2017, the Company's Board of Directors (Board) approved an increase to the number of shares available for issuance under the Company's 2010 Equity Incentive Plan (Equity Plan). These shares represent an automatic annual increase in the number of shares available for issuance under the Equity Plan of 548,214. This increase is equal to approximately 3.0% of the 18,273,921 total outstanding shares of the Company’s common stock as of December 31, 2016. This automatic increase was effective as of January 1, 2017. Shares available for issuance under the Equity Plan were initially registered on a registration statement on Form S-8 filed with the Securities and Exchange Commission on October 1, 2010 (Registration No. 333-169715). The Company filed a registration statement on Form S-8 on April 17, 2017 (Registration No. 333-217345) with respect to the shares added by the automatic increase on January 1, 2017. The Board did not approve any increase to the number of shares reserved for issuance under the Company’s 2010 Employee Stock Purchase Plan in 2017.

Right of First Investment to Certain Investors

In connection with investments in Amyris, the Company has granted certain investors, including Total and DSM, a right of first investment if the Company proposes to sell securities in certain financing transactions. With these rights, such investors may subscribe for a portion of any such new financing and require the Company to comply with certain notice periods, which could discourage other investors from participating in, or cause delays in its ability to close, such a financing. Further, in certain cases such investors have the right to pay for any securities purchased in connection with an exercise of their right of first investment by canceling all or a portion of the Company’s debt held by them. To the extent such investors exercise these rights, it will reduce the cash proceeds the Company may realize from the relevant financing.

7. Variable-interest Entities and Unconsolidated Investments

Consolidated Variable-interest Entity

Aprinnova, LLC (Aprinnova JV)

In December 2016, the Company, Nikko Chemicals Co., Ltd. an existing commercial partner of the Company, and Nippon Surfactant Industries Co., Ltd., an affiliate of Nikko (collectively, Nikko) entered into a joint venture (the Aprinnova JV Agreement) under the name Neossance, LLC, and later changed the name to Aprinnova, LLC (the Aprinnova JV). Pursuant to the Aprinnova JV agreement, the Company contributed certain assets, including certain intellectual property and other commercial assets relating to its business-to-business cosmetic ingredients business (the Aprinnova JV Business), as well as the Leland Facility described below. The Company also agreed to provide the Aprinnova JV with exclusive (to the extent not already granted to a third party), royalty-free licenses to certain of the Company's intellectual property necessary to make and sell products associated with the Aprinnova JV Business (the Aprinnova JV Products), and, in the event the Company is unable to meet its supply commitments under the Aprinnova JV Supply Agreement (as defined below), or Nikko terminates the Aprinnova JV Supply Agreement due to a material breach or default thereunder by the Company, the Company would be required to grant to the Aprinnova JV and Nikko additional non-exclusive, royalty-free licenses to certain of the Company's intellectual property rights related to the production of farnesene in connection with the manufacture, production and sale of the Aprinnova JV Products.

Nikko purchased a 50% interest in the Aprinnova JV in December 2016 in exchange for the following payments to the Company: (i) an initial payment of $10.0 million and (ii) the profits, if any, distributed to Nikko in cash as members of the Aprinnova JV during the three year period following the date of the Aprinnova JV Agreement, up to a maximum of $10.0 million.

Pursuant to the Aprinnova JV Agreement, the Company and Nikko agreed to make working capital loans to the Aprinnova JV in the amounts of $0.5 million and $1.5 million, respectively. In addition, the Company agreed to guarantee a maximum production cost for certain Aprinnova JV Products to be produced by the Aprinnova JV and to bear any cost of production above such guaranteed costs.

Under the Aprinnova JV Agreement, in the event of a merger, acquisition, sale or other similar reorganization, or a bankruptcy, dissolution, insolvency or other similar event, of the Company, on the one hand, or Nikko, on the other hand, the other member will have a right of first purchase with respect to such member’s interest in the Aprinnova JV, at the fair market value of such interest, in the case of a merger, acquisition, sale or other similar reorganization, and at the lower of the fair market value or book value of such interest, in the case of a bankruptcy, dissolution, insolvency or other similar event.

The Aprinnova JV operates under an agreement (the Aprinnova Operating Agreement) under which the Aprinnova JV is managed by a Board of Directors that consists of four directors, two appointed by the Company and two appointed by Nikko. In addition, Nikko has the right to designate the Chief Executive Officer of the Aprinnova JV from among the directors and the Company has the right to designate the Chief Financial Officer. The Company determined that it controls the Aprinnova JV because of its significant ongoing involvement in operational decision making and its guarantee of production costs for squalane and hemisqualane. The Company has concluded that the Aprinnova JV is a variable-interest entity (VIE) under the provisions of ASC 810, *Consolidation,* and that the Company is the VIE's primary beneficiary. As a result, the Company accounts for its investment in the Aprinnova JV on a consolidation basis in accordance with ASC 810.

Under the Aprinnova Operating Agreement, profits from the operations of the Aprinnova JV, if any, are distributed as follows: (i) first, to the Company and Nikko (the Members) in proportion to their respective unreturned capital contribution balances, until each Member’s unreturned capital contribution balance equals zero and (ii) second, to the Members in proportion to their respective interests. In addition, any future capital contributions will be made by the Company and Nikko on an equal (50%/50%) basis each time, unless otherwise mutually agreed.

In connection with the contribution of the Leland Facility by the Company to the Aprinnova JV, at the closing of the formation of the Aprinnova JV, Nikko made a loan to the Company in the principal amount of $3.9 million, and the Company in consideration therefore issued a promissory note to Nikko in an equal principal amount, as described in more detail in Note 4, “Debt” under “Nikko Note.”

Purchase of North Carolina Manufacturing Facility and Transfer to Aprinnova JV

In December 2016, the Company purchased a manufacturing facility in Leland, North Carolina from which it had previously purchased production output from a contract manufacturer. The Company's purchase of the facility included the building, land and equipment (collectively, the Leland Facility). The aggregate purchase price was $4.4 million, of which $3.5 million was paid in the form of a promissory note to the sellers. The promissory note is described in more detail in Note 4, “Debt” under "Salisbury Note." In December 2016, the Company transferred the Leland Facility to the Aprinnova JV upon its formation and repaid the Salisbury Note with the proceeds of the Nikko Note.

The following presents the carrying amounts of the Aprinnova JV’s assets and liabilities included in the accompanying consolidated balance sheets. Assets presented below are restricted for settlement of the Aprinnova JV's obligations and all liabilities presented below can only be settled using the Aprinnova JV resources.

December 31, (In thousands)	2017	2016
Assets	$36,781	$30,778
Liabilities	$3,187	$333

The Aprinnova JV's assets and liabilities are primarily comprised of inventory, property, plant and equipment, accounts payable and debt, which are classified in the same categories in the Company's consolidated balance sheets.

The change in noncontrolling interest for the Aprinnova JV for the years ended December 31, 2017 and 2016 is as follows:

(In thousands)	2017	2016
Balance at January 1	$(937)	$391
Income attributable to noncontrolling interest	—	(1,328)
Balance at December 31	$(937)	$(937)

Unconsolidated Investments

Equity-method Investments

Novvi LLC (Novvi)

Novvi is a U.S.-based joint venture among the Company, Cosan US, Inc. (Cosan U.S.), American Refining Group, Inc. (ARG), Chevron U.S.A. Inc. (Chevron) and H&R Group US, Inc. (H&R). Novvi's purpose is to develop, produce and commercialize base oils, additives and lubricants derived from Biofene for use in the automotive, commercial and industrial lubricants markets.

In July 2016, ARG agreed to make an initial capital contribution of up to $10.0 million in cash to Novvi in exchange for a one third ownership stake in Novvi. In connection with such investment, the Company agreed to contribute all outstanding amounts owed by Novvi to the Company under the seven existing member senior loan agreements between the Company and Novvi, as well as certain existing receivables due from Novvi to the Company related to rent and other services performance by the Company, in exchange for receiving additional membership units in Novvi. Likewise, Cosan U.S. agreed to contribute an equal amount to Novvi as the Company in exchange for receiving an equal amount of additional membership interests in Novvi. Following the ARG investment, which was fully funded as of December 31, 2017, and the capital contributions of the Company and Cosan U.S., each of Novvi’s

three members (i.e., ARG, the Company and Cosan U.S.) owned one third of Novvi's issued and outstanding membership units and were represented by two members of Novvi's Board of Managers.

In November 2016, Chevron made a capital contribution of $1.0 million in cash to Novvi in exchange for a 3% ownership stake in Novvi, which reduced the ownership interests of the Company, Cosan U.S. and ARG pro rata. In connection with its investment in Novvi, for so long as Chevron or its affiliates owns any membership units in Novvi, Chevron shall have the right to purchase up to such additional membership units as would result in Chevron owning the greater of (i) 25% of the aggregate membership units then outstanding held by Chevron, the Company, Cosan U.S. and ARG (including their affiliates and successors-in-interest) following such purchase and (ii) the highest percentage of such membership units held by the Company, Cosan U.S. and ARG (including their affiliates and successors-in-interest) following such purchase. In addition, Chevron was granted the right to purchase up to its pro rata share of all additional membership units that Novvi may, from time to time, propose to sell or issue.

In October 2017, H&R made a capital contribution of $10.0 million in cash to Novvi in exchange for a 24.39% ownership stake in Novvi, which reduced the ownership interests of Amyris, Cosan U.S., ARG and Chevron pro rata. As a result of such investment, as of December 31, 2017, each of Amyris, Cosan U.S., ARG and H&R owned a 24.39% equity ownership interest in Novvi, with Chevron owning the remaining 2.44%.

Additional funding requirements to finance the ongoing operations of Novvi are expected to occur through revolving credit or other loan facilities provided by unrelated parties (i.e., such as financial institutions); cash advances or other credit or loan facilities provided by Novvi's members or their affiliates; or additional capital contributions by the existing Novvi members or new investors.

The Company has identified Novvi as a VIE and determined that the power to direct activities which most significantly impact the economic success of the joint venture (i.e., continuing research and development, marketing, sales, distribution and manufacturing of Novvi products) are shared among the Company, Cosan U.S., ARG and H&R. Accordingly, The Company accounts for its investment in Novvi under the equity method of accounting, having determined that (i) Novvi is a VIE, (ii) the Company is not Novvi's primary beneficiary, and (iii) the Company has the ability to exert significant influence over Novvi. Under the equity method, the Company's share of profits and losses and impairment charges on investments in affiliates are included in "Loss from investments in affiliates" in the consolidated statements of operations. The carrying amount of the Company's equity investment in Novvi was zero as of December 31, 2017 and 2016 as the result of cumulative equity in losses.

Total Amyris BioSolutions B.V. (TAB)

TAB is a joint venture formed in November 2013 between the Company and Total to produce and commercialize farnesene- or farnesane-based jet and diesel fuels. TAB has not carried out any commercial activity since its inception. As of December 31, 2017, the Company and Total each owned 25% and 75% of the common equity of TAB, respectively. The Company accounts for its investment in TAB under the equity method of accounting, having determined that (i) TAB is a VIE, (ii) the Company is not TAB's primary beneficiary, and (iii) the Company has the ability to exert significant influence over TAB. The carrying value of the Company's investment in TAB as of December 31, 2017 was $0.

Cost-method Investment

In April 2017, the Company received 850,115 unregistered shares of common stock of SweeGen, Inc. (SweeGen) in satisfaction of a payment obligation from Phyto Tech Corp. (d/b/a Blue California), an affiliate of SweeGen, under a revenue agreement entered into between Blue California and the Company in December 2016. The Company obtained an independent valuation of the shares that established acquisition-date fair value of $3.2 million using an income approach under which cash flows were discounted to present value at 40%.

8. Net Loss per Share Attributable to Common Stockholders

The Company computes net loss per share in accordance with ASC 260, “Earnings per Share.” Basic net loss per share of common stock is computed by dividing the Company’s net loss attributable to Amyris, Inc. common stockholders (as adjusted in 2015 to remove the impact of the fair value adjustments for any currently exercisable warrants in which the number of shares are included in the weighted average number of shares of common stock outstanding) by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share of common stock is computed by giving effect to all potentially dilutive securities, including stock options, restricted stock units and common stock warrants, using the treasury stock method or the as converted method, as applicable. For the years ended December 31, 2017 and 2015, basic net loss per share was the same as diluted net loss per share because the inclusion of all potentially dilutive securities outstanding was anti-dilutive. As such, the numerator and the denominator used in computing both basic and diluted net loss were the same for those years.

The following table presents the calculation of basic and diluted net loss per share of common stock attributable to Amyris, Inc. common stockholders:

Years Ended December 31, **(In thousands, except shares and per share amounts)**	2017	2016	2015
Numerator:			
Net income (loss) attributable to Amyris, Inc.	$(72,329)	$(97,334)	$(217,952)
Less deemed dividend on capital distribution to related parties	(8,648)	—	—
Less deemed dividend related to beneficial conversion feature on Series A preferred stock	(562)	—	—
Less deemed dividend related to beneficial conversion feature on Series B preferred stock	(634)	—	—
Less deemed dividend related to beneficial conversion feature on Series D preferred stock	(5,757)	—	—
Less cumulative dividends on Series A and Series B preferred stock	(5,439)	—	—
Net loss attributable to Amyris, Inc. common stockholders, basic	(93,369)	(97,334)	(217,952)
Adjustment to exclude fair value gain on liability classified warrants[1]	—	—	(3,825)
Net loss attributable to Amyris, Inc. common stockholders for basic net loss per share	(93,369)	(97,334)	(221,777)
Interest on convertible debt	—	4,428	—
Accretion of debt discount	—	2,889	—
Gain from change in fair value of derivative instruments	—	(25,630)	—
Net loss attributable to Amyris, Inc. common stockholders, diluted	$(93,369)	$(115,647)	$(221,777)
Denominator:			
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock, basic	32,253,570	15,896,014	8,464,106
Basic loss per share	$(2.89)	$(6.12)	$(26.20)
Weighted-average shares of common stock outstanding	32,253,570	15,896,014	8,464,106
Effective of dilutive convertible promissory notes	—	1,746,951	—
Weighted-average common stock equivalents used in computing net loss per share of common stock, diluted	32,253,570	17,642,965	8,464,106
Diluted loss per share	$(2.89)	$(6.55)	$(26.20)

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(1) The amount represents a net gain related to a change in the fair value of a liability classified common stock warrant included in the Company's consolidated statement of operations for the year ended December 31, 2015. The warrant has a nominal exercise price and shares issuable upon exercise of the warrant are considered equivalent to the Company's common shares for the purpose of computation of basic earnings per share and consequently losses are adjusted to exclude the gain. The warrant was exercised in 2015.

The following outstanding shares of potentially dilutive securities were excluded from the computation of diluted net loss per share of common stock for the periods presented because including them would have been anti-dilutive:

Years Ended December 31,	2017	2016	2015
Period-end common stock warrants	29,921,844	334,740	193,462
Convertible promissory notes [1]	8,040,828	2,395,596	4,835,821
Period-end stock options to purchase common stock	1,338,367	899,179	862,008

Period-end restricted stock units	685,007	466,076	370,323
Total potentially dilutive securities excluded from computation of diluted net loss per share	39,986,046	4,095,591	6,261,614

(1) The potentially dilutive effect of convertible promissory notes was computed based on conversion ratios in effect as of December 31, 2017. A portion of the convertible promissory notes issued carries a provision for a reduction in conversion price under certain circumstances, which could potentially increase the dilutive shares outstanding. Another portion of the convertible promissory notes issued carries a provision for an increase in the conversion rate under certain circumstances, which could also potentially increase the dilutive shares outstanding.

9. Commitments and Contingencies

Lease Obligations

The Company leases certain facilities and finances certain equipment under operating and capital leases, respectively. Operating leases include leased facilities and capital leases include leased equipment (see Note 2, "Balance Sheet Details"). The Company recognizes rent expense on a straight-line basis over the noncancelable lease term and records the difference between cash rent payments and the recognition of rent expense as a deferred rent liability. Where leases contain escalation clauses, rent abatements, and/or concessions, such as rent holidays and landlord or tenant incentives or allowances, the Company applies them as straight-line rent expense over the lease term. The Company has noncancelable operating lease agreements for office, research and development, and manufacturing space that expire at various dates, with the latest expiration in February 2031. Rent expense under operating leases was $5.1 million, $5.3 million and $5.5 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Future minimum payments under the Company's lease obligations as of December 31, 2017, are as follows:

Years Ending December 31 (In thousands)	Capital Leases	Operating Leases	Total Lease Obligations
2018	$ 755	$ 10,127	$ 10,882
2019	185	8,760	8,945
2020	39	7,018	7,057
2021	—	7,242	7,242
2022	—	7,415	7,415
Thereafter	—	3,545	3,545
Total future minimum payments	979	$ 44,107	$ 45,086
Less: amount representing interest	(38)		
Present value of minimum lease payments	941		
Less: current portion	(724)		
Long-term portion	$ 217		

Sublease Arrangements

The Company subleases certain of its facilities to two of its collaboration partners. Total minimum rentals to be received in the future under noncancelable subleases as of December 31, 2017 were $0.4 million.

Guarantor Arrangements

The Company has agreements whereby it indemnifies its officers and directors for certain events or occurrences while the officer or director is serving in his or her official capacity. The indemnification period remains enforceable for the officer's or director’s lifetime. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is unlimited; however, the Company has a director and officer insurance policy that limits its exposure and enables the Company to recover a portion of any future payments. As a result of its insurance policy coverage, the Company believes the estimated fair value of these indemnification agreements is minimal. Accordingly, the Company had no liabilities recorded for these agreements as of December 31, 2017 and 2016.

The Company entered into the FINEP Credit Facility to finance a research and development project on sugarcane-based biodiesel; see Note 4, "Debt". The FINEP Credit Facility is guaranteed by a chattel mortgage on certain equipment of the Company. The Company's total acquisition cost for the equipment under this guarantee is R$6.0 million (approximately U.S. $1.8 million based on the exchange rate as of December 31, 2017). The FINEP Credit Facility was repaid in full in January 2018.

The Company entered into the BNDES Credit Facility to finance a production site in Brazil; see Note 4, "Debt". The BNDES Credit Facility, which was extinguished in December 2017 upon the Company's final installment payment, was collateralized by a first priority security interest in certain of the Company's equipment and other tangible assets with a total acquisition cost of R$24.9 million (approximately U.S. $7.5 million based on the exchange rate as of December 31, 2017). The Company was a parent guarantor for the payment of the outstanding balance under the BNDES Credit Facility. Additionally, the Company was required to provide certain bank guarantees under the BNDES Credit Facility.

In 2012, the Company pledged certain farnesene production assets as collateral for notes payable to Nossa Caixa and Banco Pine totaling R$52.0 million (U.S. $15.7 million based on the exchange rate as of December 31, 2017); see Note 4, "Debt". At December 31, 2017, the Company was also a parent guarantor for payment of outstanding balances under the two loan agreements. In December 2017, the Company repaid the Nossa Caixa and Banco Pine notes in full in connection with the sale of Amyris Brasil to DSM (see Note 13, “Divestiture”), and in January 2018 the pledges and parent guarantees were extinguished.

The Company has a financing agreement with Banco Safra for $1.0 million for a one-year term through June 2018 to fund exports.

The Senior Secured Loan Facility (see Note 4, "Debt") is collateralized by first-priority liens on substantially all of the Company's assets, including Company intellectual property. In addition, as discussed in Note 4, "Debt", the Nikko Note is collateralized by a first-priority lien on 10% of the Aprinnova JV interests owned by the Company.

Purchase Obligations

As of December 31, 2017, the Company had $18.3 million in purchase obligations which included $9.0 million of noncancelable contractual obligations.

Production Cost Commitment

As of December 31, 2017, the Company is committed to supplying squalane and hemisqualane to the Aprinnova JV at specified cost targets. The Company is obligated to pay all product costs above a specified target, but is not obligated to supply squalane and hemisqualane at a loss, and no liability has been accrued for the Company’s commitment to supply at the specified cost target.

Other Matters

Certain conditions may exist as of the date the financial statements are issued, which may result in a loss to the Company but will only be recorded when one or more future events occur or fail to occur. The Company's management assesses such contingent liabilities, and such assessment inherently involves an exercise of judgement. In assessing loss contingencies related to legal proceedings that are pending against and by the Company or unasserted claims that may result in such proceedings, the Company's management evaluates the perceived merits of any legal proceedings or unasserted claims as well as the perceived merits of the amount of relief sought or expected to be sought.

If the assessment of a contingency indicates that it is probable that a material loss has been incurred and the amount of the liability can be estimated, then the estimated liability would be accrued in the Company's financial statements. If the assessment indicates that a potential material loss contingency is not probable but is reasonably possible, or is probable but cannot be reasonably estimated, then the nature of the contingent liability, together with an estimate of the range of possible loss if determinable and material would be disclosed. Loss contingencies considered to be remote by management are generally not disclosed unless they involve guarantees, in which case the guarantee would be disclosed.

In April 2017, a securities class action complaint was filed against the Company and its CEO, John G. Melo, and CFO, Kathleen Valiasek, in the U.S. District Court for the Northern District of California. The complaint sought unspecified damages on behalf of a purported class that would comprise all individuals who acquired the Company's common stock between March 2, 2017 and April 17, 2017. The complaint alleged securities law violations based on statements made by the Company in its earnings press release issued on March 2, 2017 and Form 12b-25 filed with the SEC on April 3, 2017. On September 21, 2017, an Order of Dismissal was entered on the plaintiff’s notice of voluntary dismissal without prejudice.

Subsequent to the filing of the securities class action complaint described above, four separate purported shareholder derivative complaints were filed based on substantially the same facts as the securities class action complaint described above (the Derivative Complaints). The Derivative Complaints name Amyris, Inc. as a nominal defendant and name a number of the Company's current officers and directors as additional defendants. The lawsuits seek to recover, on the Company's behalf, unspecified damages purportedly sustained by the Company in connection with allegedly misleading statements and/or omissions made in connection with the Company's securities filings. The Derivative Complaints also seek a series of changes to the Company's corporate governance policies, restitution to the Company from the individual defendants, and an award of attorneys' fees. Two of the Derivative Complaints were filed in the U.S. District Court for the Northern District of California (together, the Federal Derivative Cases): Bonner v. John Melo, et al., Case No. 4:17-cv-04719, filed August 15, 2017, and Goldstein v. John Melo, et al., Case No. 3:17-cv-04927, filed on August 24, 2017. On September 19, 2017, an order was entered consolidating the Federal Derivative Cases into a single consolidated action, captioned: In re Amyris, Inc., Shareholder Derivative Litigation, Lead Case No. 2:15-cv-04719, and ordering plaintiffs to file a consolidated complaint or designate an operative complaint by November 3, 2017. On November 3, 2017, the plaintiffs in the Federal Derivative Cases filed a Notice of Designation of Operative Complaint designating the complaint filed in the Bonner case as the operative complaint. On December 21, 2017, the defendants filed a motion to dismiss the Federal Derivative Cases. By Order dated March 9, 2018, the Court granted defendants' motion to dismiss the Federal Derivative Cases, and on March 29, 2018, the plaintiffs filed an amended complaint with the Court. The remaining two Derivative Complaints were filed in the Superior Court for the State of California (the State Derivative Cases): Gutierrez v. John G. Melo, et al., Case. No. BC 665782, filed on June 20, 2017, in the Superior Court for the County of Los Angeles, and Soleimani v. John G. Melo, et al., Case No. RG 17865966, filed on June 29, 2017, in the Superior Court for the County of Alameda. On August 31, 2017, the Gutierrez case was transferred to the Superior Court for the State of California, County of Alameda and assigned case number RG17876383. These state cases are in the initial pleadings stage. We believe the Derivative Complaints lack merit, and intend to defend ourselves vigorously. Given the early stage of these proceedings, it is not yet possible to reliably determine any potential liability that could result from this matter.

The Company is subject to disputes and claims that arise or have arisen in the ordinary course of business and that have not resulted in legal proceedings or have not been fully adjudicated. Such matters that may arise in the ordinary course of business are subject to many uncertainties and outcomes are not predictable with reasonable assurance and therefore an estimate of all the reasonably possible losses cannot be determined at this time. Therefore, if one or more of these legal disputes or claims resulted in settlements or legal proceedings that were resolved against the Company for amounts in excess of management's expectations, the Company's consolidated financial statements for the relevant reporting period could be materially adversely affected.

10. Significant Revenue Agreements

For the years ended December 31, 2017, 2016 and 2015, the Company recognized revenue in connection with significant revenue agreements and from all other customers as follows:

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Years Ended December 31, (In thousands)	2017				2016		
	Renewable Products	Licenses and Royalties	Grants and Collaborations	TOTAL	Renewable Products	Licenses and Royalties	Grants and Collaborat
Revenue from significant revenue agreements with:							
DSM (related party)	$—	$57,972	$1,679	$59,651	$—	$—	$—
Firmenich	9,621	1,199	5,803	16,623	9,660	745	7,513
Nenter & Co., Inc.	12,057	2,633	—	14,690	6,236	—	—
DARPA	—	—	12,333	12,333	—	—	9,697
Ginkgo	—	—	—	—	—	15,000	—
Subtotal revenue from significant revenue agreements	21,678	61,804	19,815	103,297	15,896	15,745	17,210
Revenue from all other customers	20,692	2,673	16,783	40,148	9,614	94	8,633
Total revenue from all customers	$42,370	$64,477	$36,598	$143,445	$25,510	$15,839	$25,843

Renewable Products

Firmenich Agreements

In 2013, the Company entered into a collaboration agreement with Firmenich SA (Firmenich) (as amended, the Firmenich Collaboration Agreement), for the development and commercialization of multiple renewable flavors and fragrances compounds. In 2014, the Company entered into a supply agreement with Firmenich (the Firmenich Supply Agreement) for compounds developed under the Firmenich Collaboration Agreement. The Firmenich Collaboration Agreement and Firmenich Supply Agreement (the Firmenich Agreements) are considered for revenue recognition purposes to comprise a single multiple-element arrangement.

In July 2017, the Company and Firmenich entered into an amendment of the Firmenich Collaboration Agreement, pursuant to which the parties agreed to exclude certain compounds from the scope of the agreement and to amend certain terms connected with the supply and use of such compounds when commercially produced. In addition, the parties agreed to (i) fix at a 70/30 basis (70% for Firmenich) the ratio at which the parties will share profit margins from sales of two compounds; (ii) set at a 70/30 basis (70% for Firmenich) the ratio at which the parties will share profit margins from sales of a distinct form of compound until Firmenich receives $15.0 million more than the Company in the aggregate from such sales, after which time the parties will share the profit margins 50/50 and (iii) a maximum Company cost of a compound where a specified purchase volume is satisfied, and alternative production and margin share arrangements in the event such Company cost cap is not achieved.

Pursuant to the Firmenich Collaboration Agreement, the Company agreed to pay a one-time success bonus to Firmenich of up to $2.5 million if certain commercialization targets are met. Such targets have not yet been met as of December 31, 2017. The one-time success bonus will expire upon termination of the Firmenich Collaboration

Agreement, which has an initial term of 10 years and will automatically renew at the end of such term (and at the end of any extension) for an additional 3-year term unless otherwise terminated. At December 31, 2017, the Company had a $0.3 million liability associated with this one-time success bonus that has been recorded as a reduction to the associated collaboration revenue.

Nenter Agreements

In April 2016, the Company and Nenter & Co., Inc. (Nenter) entered into a renewable farnesene supply agreement (the Nenter Supply Agreement) under which the Company agreed to supply farnesene and provide certain exclusive purchase rights, and Nenter committed to purchase minimum quantities and make quarterly royalty payments to the Company representing a portion of Nenter's profit on the sale of products produced using farnesene purchased under the agreement. The agreement expires December 31, 2020 and will automatically renew for an additional five years unless otherwise terminated. In December 2017, the Company assigned the Nenter Supply Agreement to DSM in connection with the Company's sale of Amyris Brasil, which owns and operates the Brotas 1 production facility; see Note 13, "Divestiture" for details.

In October 2016, the Company and Nenter entered into a separate cooperation agreement. In May 2017, the parties terminated that agreement, and as consideration for the termination, the Company paid Nenter a $2.5 million fee, which is included in Sales, General and Administrative expense for the year ended December 31, 2017.

Licenses and Royalties

DSM Agreements

DSM July and September 2017 Collaboration and Licensing Agreements

In July and September 2017, the Company entered into three separate collaboration agreements with DSM (the DSM Collaboration Agreements) to jointly develop three new molecules in the Health and Nutrition field (the DSM Ingredients) using the Company's technology, which the Company would produce and DSM would commercialize. Pursuant to the DSM Collaboration Agreements, DSM will, subject to certain conditions, provide funding for the development of the DSM Ingredients and, upon commercialization, the parties would enter into supply agreements whereby DSM would purchase the applicable DSM Ingredients from the Company at prices agreed by the parties. The development services will be directed by a joint steering committee with equal representation by DSM and the Company. In addition, the parties will share profit margin from DSM's sales of products that incorporate the DSM Ingredients subject to the DSM Collaboration Agreements.

In connection with the entry into the DSM Collaboration Agreements, the Company and DSM also entered into certain license arrangements (the DSM License Agreements) providing DSM with certain rights to use the technology underlying the development of the DSM Ingredients to produce and sell products incorporating the DSM Ingredients. Under the DSM License Agreements, DSM agreed to pay the Company $9.0 million for a worldwide, exclusive, perpetual, royalty-free license to produce and sell products incorporating one of the DSM Ingredients in the Health and Nutrition field.

In addition, in connection with the entry into the DSM Collaboration Agreements, the Company and DSM entered into the DSM Credit Letter, pursuant to which the Company granted a credit to DSM in an aggregate amount of $12.0 million to be offset against future collaboration payments (in an amount not to exceed $6.0 million) and royalties receivable from DSM beginning in 2018. The fair value of the DSM Credit Letter was $7.1 million at inception. During the three months ended December 31, 2017, the Company and DSM terminated the DSM Credit Letter, eliminating the $12.0 million credit.

The Company received $34.0 million of fixed consideration resulting from the August 2017 DSM Offering and the DSM License Agreements and allocated this consideration to the various elements identified. The Company first allocated $33.3 million of the fixed consideration to the August 2017 DSM Cash Warrants, August 2017 DSM Dilution Warrants, the Make-Whole Payment, the August 2017 DSM Series B Preferred Stock and the DSM Credit Agreement. The remaining $0.7 million was recognized as revenue generated from the delivery of the intellectual property licenses to DSM. At December 31, 2017, there was $7.1 million of deferred revenue in connection with the DSM License and Collaboration Agreements, which became a component of the December 2017 multiple-element arrangement with DSM described below.

DSM Value Sharing Agreement

In December 2017, in conjunction with the Company's divestiture of its Brotas 1 production facility (see Note 13, "Divestiture"), the Company and DSM entered into a value sharing agreement (the Value Sharing Agreement), pursuant to which DSM will make certain royalty payments to the Company representing a portion of the profit on the sale of products produced using farnesene purchased under the Nenter Supply Agreement realized by Nenter and paid to DSM in accordance with the Nenter Supply Agreement. In addition, pursuant to the Value Sharing Agreement, DSM will guarantee certain minimum annual royalty payments for the first three calendar years of the Value Sharing Agreement, subject to future offsets in the event that the royalty payments to which the Company would otherwise have been entitled under the Value Sharing Agreement for such years fall below certain milestones. The fair value of the nonrefundable minimum annual royalty payments were determined to be fixed and determinable, and were included as part of the total arrangement consideration subject to allocation of the overall multiple-element transaction that occurred in December 2017 with DSM. Under the Value Sharing Agreement, the Company is required to use certain value share payments received by the Company with respect to the first three calendar years of the Value Sharing Agreement in excess of the guaranteed minimum annual value share payments for such years, if any, to repay amounts outstanding under the DSM Credit Agreement; see Note 4, "Debt". The Value Sharing Agreement will expire in December 2027, subject to the right of each of the parties to terminate for uncured material breach by the other party or in the event the other party is subject to bankruptcy proceedings, liquidation, dissolution or similar proceedings or other specified events. In March 2018, the Company and DSM amended the Value Sharing Agreement to provide for the use of estimates in calculating quarterly value share payments (subject to true-up) and modify how the guaranteed minimum annual value share payment for 2018 will be offset against value payments accruing during 2018.

DSM Performance Agreement

In December 2017, in connection with the Company's divestiture of its Brotas 1 production facility (see Note 13, "Divestiture"), the Company and DSM entered into a performance agreement (Performance Agreement), pursuant to which the Company will provide certain research and development services to DSM relating to the development of the technology underlying the farnesene-related products to be manufactured at the Brotas 1 facility in exchange for related funding, including certain bonus payments in the event that specific performance metrics are achieved. The Company will record the bonus payments as earned revenue upon the transfer of the developed technology to DSM. If the Company does not meet the established metrics under the Performance Agreement, the Company will be required to pay $1.8 million to DSM. The Performance Agreement will expire in December 2020, subject to the right of each of the parties to terminate for uncured material breach by the other party or in the event the other party is subject to bankruptcy proceedings, liquidation, dissolution or similar proceedings or other specified events.

DSM November 2017 Intellectual Property License Agreement

In November 2017, in connection with the Company's divestiture of its Brotas 1 production facility (see Note 13, "Divestiture"), the Company and DSM entered into a license agreement covering certain intellectual property of the Company useful in the performance of certain commercial supply agreements assigned by the Company to DSM relating to products currently manufactured at Brotas 1 (the DSM November 2017 Intellectual Property License Agreement). In December 2017, DSM paid the Company an upfront license fee of $27.5 million. In accounting for the Divestiture with DSM, a multiple-element arrangement, the license of intellectual property to DSM was identified as revenue deliverable with standalone value and qualified as a separate unit of accounting. The Company performed an analysis to determine the fair value for of the license, and allocated the non-contingent consideration based on the relative fair value. The Company determined that the license had been fully delivered, and, as such, license revenue of $57.3 million was recognized as revenue.

Ginkgo Agreements

Ginkgo Initial Strategic Partnership Agreement and Collaboration Agreement

In June 2016, the Company entered into a collaboration agreement (the Initial Ginkgo Agreement) with Ginkgo Bioworks, Inc. (Ginkgo), pursuant to which the Company licensed certain intellectual property to Ginkgo in exchange for a fee of $20.0 million to be paid by Ginkgo to the Company in two installments, and a 10% royalty on net revenue, including without limitation net sales, royalties, fees and any other amounts received by Ginkgo related directly to the license. The Company received the first installment of $15.0 million in 2016. However, the Company did not receive the second installment of $5.0 million.

In addition, pursuant to the Initial Ginkgo Agreement, (i) the Company and Ginkgo agreed to pursue the negotiation and execution of a detailed definitive partnership and license agreement setting forth the terms of a commercial partnership and collaboration arrangement between the parties (Ginkgo Collaboration), (ii) the Company agreed to issue to Ginkgo a warrant to purchase 333,334 shares of the Company's common stock at an exercise price of $7.50, exercisable for one year from the date of issuance, in connection with the execution of the definitive agreement for the Ginkgo Collaboration, (iii) the Company received a deferment of all scheduled principal repayments under the Senior Secured Loan Facility, the lender and administrative agent under which is an affiliate of Ginkgo, as well as a waiver of the Minimum Cash Covenant, through October 31, 2016 and (iv) in connection with the execution of the definitive agreement for the Ginkgo Collaboration, the parties would effect an amendment of the LSA (see Note 4, "Debt") to (x) extend the maturity date of all outstanding loans under the Senior Secured Loan Facility, (y) waive any required amortization payments under the Senior Secured Loan Facility until maturity and (z) eliminate the Minimum Cash Covenant under the Senior Secured Loan Facility.

In August 2016, the Company issued to Ginkgo the warrant described above. The warrant was issued prior to the execution of the definitive agreement for the Ginkgo Collaboration in connection with the transfer of certain information technology from Ginkgo to the Company. The warrant expired in August 2017 unexercised.

In September 2016, the Company and Ginkgo entered into a collaboration agreement (the Ginkgo Collaboration Agreement) setting forth the terms of the Ginkgo Collaboration, under which the parties would collaborate to develop, manufacture and sell commercial products, and Ginkgo would pay royalties to the Company. The Ginkgo Collaboration Agreement provided that, subject to certain exceptions, all third-party contracts for the development of chemical small molecule compounds whose manufacture is enabled by the use of microbial strains and fermentation technologies that are entered into by the Company or Ginkgo during the term of the Ginkgo Collaboration Agreement would be subject to the Ginkgo Collaboration and the approval of the other party (not to be unreasonably withheld). Responsibility for the engineering and small-scale process development of the newly developed products would be allocated between the parties on a project-by-project basis, and the Company would be principally responsible for the commercial scale-up and production of such products, with each party generally bearing its own respective costs and expenses relating to the Ginkgo Collaboration, including capital expenditures. Notwithstanding the foregoing, subject to the Company sourcing funding and breaking ground on a new production facility by March 30, 2017, Ginkgo would pay the Company a fee of $5.0 million; however, the Company did not receive the second installment payment.

Under the Ginkgo Collaboration Agreement, subject to certain exceptions, including excluded or refused products and cost savings initiatives, the profit on the sale of products subject to the Ginkgo Collaboration Agreement as well as cost-sharing, milestone and “value-creation” payments associated with the development and production of such products would be shared equally between the parties. The parties also agreed to provide each other with a license and other rights to certain intellectual property necessary to support the development and manufacture of the products under the Ginkgo Collaboration, and also to provide each other with access to certain other intellectual property useful in connection with the activities to be undertaken under the Ginkgo Collaboration Agreement, subject to certain carve-outs.

The initial term of the Ginkgo Collaboration Agreement was three years. $15.0 million was recognized as revenue upon receipt of cash in July 2016. The remaining $5.0 million was never received and was not recognized.

Ginkgo Partnership Agreement

In November 2017, the Company and Ginkgo entered into a partnership agreement (the Ginkgo Partnership Agreement) that supersedes the Ginkgo Collaboration Agreement. Under the Ginkgo Partnership Agreement, the Company and Ginkgo agreed:

- to continue to collaborate on limited research and development;
- to provide each other licenses (with royalties) to specified intellectual property for limited purposes;
-

for the Company to pay Ginkgo quarterly fees of $0.8 million (Partnership Payments) beginning on December 31, 2018 and ending on September 30, 2022;

- to share profit margins from sales of a certain product to be developed under the Ginkgo Partnership Agreement on a 50/50 basis, subject to certain conditions, provided that net profits will be payable to Ginkgo for any quarterly period only to the extent that such net profits exceed the sum of (a) quarterly interest payments due under the November 2017 Ginkgo Note (see Note 4, "Debt") and (b) Partnership Payments due in such quarter; and
- for the Company to pay Ginkgo $0.5 million in connection with certain fees previously owed to Ginkgo under the Ginkgo Collaboration Agreement.

The Ginkgo Partnership Agreement provides for an initial term of two years and will automatically renew for successive one-year terms thereafter unless otherwise terminated.

Collaborations

DARPA Technology Investment Agreement

In September 2015, the Company entered into a technology investment agreement (the TIA) with The Defense Advanced Research Projects Agency (DARPA), under which the Company, with the assistance of specialized subcontractors, is working to create new research and development tools and technologies for strain engineering and scale-up activities. The agreement is being funded by DARPA on a milestone basis. Under the TIA, we and our subcontractors could collectively receive DARPA funding of up to $35.0 million over the program's four year term if all of the program's milestones are achieved. In conjunction with DARPA's funding, we and our subcontractors are obligated to collectively contribute approximately $15.5 million toward the program over its four year term (primarily by providing specified labor and/or purchasing certain equipment). For the DARPA agreement, the Company recognizes revenue using the milestone method, based upon achievement of milestones once acknowledged by DARPA.

11. Related Party Transactions

Related Party Divestiture

See Note 13, "Divestiture" for details regarding the sale of Amyris Brasil to DSM in December 2017.

Related Party Debt

See Note 4, "Debt" for details of these related party debt transactions:

- August 2013 Financing Convertible Notes
- 2014 Rule 144A Convertible Notes
- R&D Note (also see Note 18, "Subsequent Events")
- DSM Note (also see Note 13, "Divestiture")
- February 2016 Private Placement

- June 2016 and October 2016 Private Placements
- Maturity Treatment Agreement

Related party debt was as follows:

December 31, (in thousands)	2017			2016		
	Principal	Unamortized Debt (Discount) Premium	Net	Principal	Unamortized Debt (Discount) Premium	Net
Total						
R&D note	$3,700	$ (18)	$3,682	$3,700	$ (80)	$3,620
August 2013 financing convertible notes	21,711	897	22,608	19,781	2,033	21,814
2014 Rule 144A convertible notes	9,705	(1,538)	8,167	9,705	(2,986)	6,719
	35,116	(659)	34,457	33,186	(1,033)	32,153
DSM						
DSM note	25,000	(8,039)	16,961	—	—	—
Other DSM loan	393	—	393	—	—	—
	25,393	(8,039)	17,354	—	—	—
Biolding						
February 2016 private placement	2,000	—	2,000	2,000	(131)	1,869
Foris						
2014 Rule 144A convertible notes	5,000	(660)	4,340	5,000	(1,316)	3,684
February 2016 private placement	—	—	—	16,000	(1,047)	14,953
June and October 2016 private placements	—	—	—	11,000	—	11,000
	5,000	(660)	4,340	32,000	(2,363)	29,637
Naxyris						
February 2016 private placement	—	—	—	2,000	(131)	1,869
Temasek						
2014 Rule 144A convertible notes	10,000	(1,586)	8,414	10,000	(3,078)	6,922
	$77,509	$ (10,944)	$66,565	$79,186	$ (6,736)	$72,450

The fair value of the derivative liabilities related to the related party R&D Note, related party August 2013 Financing Convertible Notes and related party 2014 Rule 144A Convertible Notes as of December 31, 2017 and 2016 was $0.2 million and $0.8 million, respectively. The Company recognized gains from change in the fair value of these derivative liabilities of $0.6 million, $7.6 million and $10.5 million for the years ended December 31, 2017, 2016 and 2015, respectively; see Note 3, "Fair Value Measurement".

Related Party Revenue

The Company recognized revenue from related parties and from all other customers as follows:

Years Ended December 31, (In thousands)	2017	2016	201

	Renewable Products	Licenses and Royalties	Grants and Collaborations	TOTAL	Renewable Products	Licenses and Royalties	Grants and Collaborations	TOTAL	Ren Proc
Revenue from related parties:									
DSM	$—	$57,972	$1,679	$59,651	$—	$—	$—	$—	$—
Novvi	1,491	—	—	1,491	1,390	—	—	1,390	—
Total	(200)	—	—	(200)	172	—	—	172	86
Subtotal revenue from related parties	1,291	57,972	1,679	60,942	1,562	—	—	1,562	86
Revenue from all other customers	41,079	6,505	34,919	82,503	23,948	15,839	25,843	65,630	13
Total revenue from all customers	$42,370	$64,477	$36,598	$143,445	$25,510	$15,839	$25,843	$67,192	$14

See Note 10, "Significant Revenue Agreements" for details of the Company's revenue agreements with DSM.

Related Party Accounts Receivable

Related party accounts receivable was as follows:

December 31, (In thousands)	2017	2016
DSM	$12,823	$—
Novvi	$1,607	$—
Total	$238	$805
Related party accounts receivable, net	$14,668	$805

In addition to the amounts shown above, there was a $7.9 million unbilled receivable from DSM included in noncurrent assets on the consolidated balance sheet at December 31, 2017.

Related Party Joint Ventures

See Note 7, "Variable-interest Entities and Unconsolidated Investments" for information about the Company's:

- Aprinnova joint venture with Nikko
- TAB joint venture with Total

Pilot Plant and Secondee Agreements

The Company and Total are parties to the following agreements:

- Pilot Plant Agreement, under which the Company leases space in its pilot plants to Total and provides Total with fermentation and downstream separations scale-up services and training to Total employees. In connection with this arrangement, the Company charged Total $0.4 million, $0.4 million and $0.9 million for the years ended December 31, 2017, 2016 and 2015, respectively, which were offset against the Company's cost and operating expenses.

- Secondee Agreement, under which Total assigns certain of its employees to the Company to provide research and development services. In connection with this agreement, Total charged the Company zero, $0.8 million and $0.9 million for the years ended December 31, 2017, 2016 and 2015, respectively.

In February 2017, the Company and Total amended these agreement to provide that the Company would not be charged for the cost of Total's employees on or after May 1, 2016, other than overhead charges. Net amounts payable to Total under these two arrangements were $1.4 million and $2.2 million as of December 31, 2017 and 2016, respectively. The Secondee Agreement expired on December 31, 2017, and the Pilot Plant Agreement expires in April 2019.

Office Sublease

The Company subleases certain office space to Novvi, for which the Company charged Novvi $0.5 million, $0.4 million (net of $0.4 million forgiven) and $0.7 million for the years ended December 31, 2017, 2016 and 2015, respectively.

12. Stock-based Compensation

Stock-based Compensation Expense Related to All Plans

Stock-based compensation expense related to all employee stock compensation plans, including options, restricted stock units and ESPP, was as follows:

Years Ended December 31,			
(In thousands)	2017	2016	2015
Research and development	$2,204	$1,948	$2,306
Sales, general and administrative	4,061	5,377	6,828
Total stock-based compensation expense	$6,265	$7,325	$9,134

Plans

2010 Equity Incentive Plan

The Company's 2010 Equity Incentive Plan (the 2010 Equity Plan) became effective on September 28, 2010 and will terminate in 2020. The 2010 Equity Plan provides for the granting of common stock options, restricted stock awards, stock bonuses, stock appreciation rights, restricted stock units and performance awards. It allows for time-based or performance-based vesting for the awards. Options granted under the 2010 Equity Plan may be either incentive stock options (ISOs) or non-statutory stock options (NSOs). ISOs may be granted only to Company employees (including officers and directors who are also employees). NSOs may be granted to Company employees, non-employee directors and consultants. The Company will be able to issue no more than 2,000,000 shares pursuant to the grant of ISOs under the 2010 Equity Plan. Options under the 2010 Equity Plan may be granted for periods of up to ten years. All options issued to date have had a ten year life. Under the plan, the exercise price of any ISOs and NSOs may not be less than 100% of the fair market value of the shares on the date of grant. The exercise price of any ISOs and NSOs granted to a 10% stockholder may not be less than 110% of the fair value of the underlying stock on the date of grant. The options granted to date generally vest over four to five years.

As of December 31, 2017 and 2016, options were outstanding to purchase 1,255,045 and 770,761 shares, respectively, of the Company's common stock granted under the 2010 Equity Plan, with a weighted-average exercise price per share of $26.29 and $45.76, respectively. In addition, as of December 31, 2017 and 2016, restricted stock units representing the right to receive 683,554 and 454,923 shares, respectively, of the Company's common stock granted under the 2010 Equity Plan were outstanding. As of December 31, 2017 and 2016, 252,107 and 552,392 shares, respectively, of the Company’s common stock remained available for future awards that may be granted under the 2010 Equity Plan.

The number of shares reserved for issuance under the 2010 Equity Plan increases automatically on January 1 of each year starting with January 1, 2011, by a number of shares equal to 5% of the Company’s total outstanding shares as of the immediately preceding December 31. However, the Company’s Board of Directors or the Leadership Development and Compensation Committee of the Board of Directors retains the discretion to reduce the amount of the increase in any particular year.

2005 Stock Option/Stock Issuance Plan

In 2005, the Company established its 2005 Stock Option/Stock Issuance Plan (2005 Plan) which provided for the granting of common stock options, restricted stock units, restricted stock and stock purchase rights awards to employees and consultants of the Company. The 2005 Plan allowed for time-based or performance-based vesting for the awards. Options granted under the 2005 Plan were ISOs or NSOs. ISOs were granted only to Company employees

(including officers and directors who are also employees). NSOs were granted to Company employees, non-employee directors, and consultants.

All options issued under the 2005 Plan had a ten year life. The exercise prices of ISOs and NSOs granted under the 2005 Plan were not less than 100% of the estimated fair value of the shares on the date of grant, as determined by the Board of Directors. The exercise price of an ISO and NSO granted to a 10% stockholder could not be less than 110% of the estimated fair value of the underlying stock on the date of grant as determined by the Board. The options generally vested over 5 years.

As of December 31, 2017 and 2016, options to purchase 79,322 and 100,260 shares, respectively, of the Company’s common stock granted under the 2005 Plan remained outstanding and as a result of the adoption of the 2010 Equity Plan discussed above, zero shares of the Company’s common stock remained available for future awards issuance under the 2005 Plan. The options outstanding under the 2005 Plan as of December 31, 2017 and 2016 had a weighted-average exercise price per share of $144.58 and $127.58, respectively.

2010 Employee Stock Purchase Plan

The 2010 Employee Stock Purchase Plan (the 2010 ESPP) became effective on September 28, 2010. The 2010 ESPP is designed to enable eligible employees to purchase shares of the Company's common stock at a discount. Offering periods under the 2010 ESPP generally commence on each May 16 and November 16, with each offering period lasting for one year and consisting of two six-month purchase periods. The purchase price for shares of common stock under the 2010 ESPP is the lesser of 85% of the fair market value of the Company's common stock on the first day of the applicable offering period or the last day of each purchase period. A total of 11,241 shares of common stock were initially reserved for future issuance under the 2010 Employee Stock Purchase Plan. During the life of the 2010 ESPP, the number of shares reserved for issuance increases automatically on January 1 of each year, starting with January 1, 2011, by a number of shares equal to 1% of the Company's total outstanding shares as of the immediately preceding December 31. However, the Company's Board of Directors or the Leadership Development and Compensation Committee of the Board of Directors retains the discretion to reduce the amount of the increase in any particular year. No more than 666,666 shares of the Company's common stock may be issued under the 2010 ESPP and no other shares may be added to this plan without the approval of the Company's stockholders.

Stock Option Activity

Stock option activity is summarized as follows:

Year ended December 31,	2017	2016	2015
Options granted	661,094	239,012	314,686
Weighted-average grant-date fair value per share	$3.26	$8.85	$18.15
Compensation expense related to stock options (in millions)	$3.3	$3.5	$6.0
Unrecognized compensation costs as of December 31 (in millions)	$2.7	$4.4	$8.0

The Company expects to recognize the December 31, 2017 balance of unrecognized costs over a weighted-average period of 2.5 years. Future option grants will increase the amount of compensation expense to be recorded in these periods.

Stock-based compensation expense for stock options and employee stock purchase plan rights is estimated at the grant date and offering date, respectively, based on the fair-value using the Black-Scholes option pricing model. The fair value of employee stock options is amortized on a straight-line basis over the requisite service period of the awards. The fair value of employee stock options was estimated using the following weighted-average assumptions:

Years Ended December 31,	2017	2016	2015

Expected dividend yield	— %	— %	— %
Risk-free interest rate	2.1 %	1.4 %	1.8 %
Expected term (in years)	6.12	6.16	6.08
Expected volatility	84 %	73 %	74 %

The Company uses third-party analyses to assist in developing the assumptions used in, as well as calibrating, its Black-Scholes model. The Company is responsible for determining the assumptions used in estimating the fair value of its share-based payment awards.

The expected life of options is based primarily on historical share option exercise experience of the employees for options granted by the Company. All options are treated as a single group in the determination of expected life, as the Company does not currently expect substantially different exercise or post-vesting termination behavior among the employee population. The risk-free interest rate is based on the U.S. Treasury yield for a term consistent with the expected life of the awards in effect at the time of grant. Expected volatility is based on the historical volatility of the Company's common stock. The Company has no history or expectation of paying dividends on common stock.

Stock-based compensation expense associated with options is based on awards ultimately expected to vest. At the time of an option grant, the Company estimates the expected future rate of forfeitures based on historical experience. These estimates are revised, if necessary, in subsequent periods if actual forfeiture rates differ from those estimates. If the actual forfeiture rate is lower than estimated the Company will record additional expense and if the actual forfeiture is higher than estimated the Company will record a recovery of prior expense.

The Company’s stock option activity and related information for the year ended December 31, 2017 was as follows:

	Number of Stock Options	Weighted-average Exercise Price	**Weighted-average Remaining Contractual Life** (in years)	**Aggregate Intrinsic Value** (in thousands)
Outstanding - December 31, 2016	875,021	$ 55.20	6.70	$ 443
Options granted	661,094	$ 4.56		
Options exercised	-	$ -		
Options forfeited or expired	(197,748)	$ 33.46		
Outstanding - December 31, 2017	1,338,367	$ 33.40	7.71	$ 97
Vested or expected to vest after December 31, 2017	1,257,439	$ 33.40	7.62	$ 81
Exercisable at December 31, 2017	925,778	$ 43.48	7.18	$ 27

The aggregate intrinsic value of options exercised under all option plans was zero for the years ended December 31, 2017, 2016 and 2015, respectively, determined as of the date of option exercise.

Restricted Stock Units Activity and Expense

During the years ended December 31, 2017, 2016 and 2015, 523,167, 326,523 and 332,569 restricted stock units (RSUs), respectively, were granted with a weighted-average service-inception date fair value per unit of $5.51, $9.15 and $27.30, respectively. The Company recognized a total of $2.8 million, $3.6 million, and $2.8 million, respectively, for the years ended December 31, 2017, 2016 and 2015 in stock-based compensation expense for restricted stock units granted. As of December 31, 2017 and 2016, there were unrecognized compensation costs of $5.0 million and $5.4 million, respectively, related to these restricted stock units.

Stock-based compensation expense for RSUs is measured based on the closing fair market value of the Company's common stock on the date of grant.

The Company’s RSU and restricted stock activity and related information for the year ended December 31, 2017 was as follows:

	Number of Restricted Stock Units	Weighted-average Grant-date Fair Value	Weighted-average Remaining Contractual Life (in years)
Outstanding - December 31, 2016	454,923	$ 17.48	1.4
Awarded	523,167	$ 5.51	
Vested	(191,844)	$ 18.71	
Forfeited	(102,692)	$ 13.00	
Outstanding - December 31, 2017	683,554	$ 8.66	1.4
Vested or expected to vest after December 31, 2017	533,670	$ 8.92	1.3

ESPP Activity and Expense

During the years ended December 31, 2017 and 2016, 47,045 and 22,405 shares, respectively, of the Company's common stock were purchased under the 2010 ESPP. At December 31, 2017 and 2016, 80,594 and 127,669 shares, respectively, of the Company’s common stock remained reserved for issuance under the 2010 ESPP.

During the years ended December 31, 2017, 2016 and 2015, the Company also recognized stock-based compensation expense related to its 2010 ESPP of $0.1 million, $0.1 million, and $0.3 million, respectively.

The valuation of employee stock purchase rights and the related assumptions are for the employee stock purchases made during the respective fiscal years.

13. Divestiture

On December 28, 2017, the Company completed the sale of Amyris Brasil, which operated the Company's Brotas 1 production facility, to DSM and concurrently entered into a series of commercial agreements and a credit agreement with DSM. At closing, the Company received $33.0 million in cash for the capital stock of Amyris Brazil, which is subject to certain post-closing working capital adjustments; and reimbursements contingent upon DSM's utilization of certain Brazilian tax benefits it acquired with its purchase of Amyris Brasil. The Company used $12.6 million of the cash proceeds received to repay certain indebtedness of Amyris Brasil. The total fair value of the consideration to be received by the Company for Amyris Brasil was $56.9 million and resulted in a pretax gain of $5.7 million from continuing operations.

Concurrent with the sale of Amyris Brasil, the Company and DSM entered into a series of commercial agreements including (i) a license agreement to DSM of its farnesene product for DSM to use in the Vitamin E, lubricant, and flavor and fragrance markets; (ii) a value share agreement that DSM will pay the Company specified royalties representing a portion of the profit on the sale of Vitamin E produced from farnesene under the Nenter Supply Agreement assigned to DSM; (iii) a performance agreement for the Company to perform research and development to optimize farnesene for production and sale of farnesene products; and (iv) a transition services agreement for the Company to provide finance, legal, logistics, and human resource services to support the Brotas 1 facility under DSM ownership for a six-month period with a DSM option to extend for six additional months. At closing, DSM paid the Company a nonrefundable license fee of $27.5 million and a nonrefundable royalty payment (previously referred to as value share) of $15.0 million. DSM will also pay the Company nonrefundable minimum annual royalty payments in 2018 and 2019. The future nonrefundable minimum annual royalty payments were determined to be fixed and determinable with a fair value of $17.8 million, and were included as part of the total arrangement consideration subject to allocation of this overall multiple-element divestiture transaction. See Note 10, "Significant Revenue Agreements", for a full listing and details of agreements entered into with DSM. Additionally, the Company and DSM entered into a $25.0 million credit agreement that the Company used to repay all outstanding amounts under the Guanfu Note (see Note 4, "Debt").

The Company accounted for the sale of Amyris Brasil as a sale of a business. The agreements entered into concurrently with the sale of Amyris Brasil including the license agreement, value share agreement, performance agreement, transition services agreement, and credit agreement contain various elements and, as such, are deemed to

be an arrangement with multiple deliverables as defined under U.S. GAAP. The Company performed an analysis to determine the fair value for all elements in the agreements with DSM and separated the elements between the non-revenue and revenue elements. After allocating the total fair value of the non-revenue elements from the fixed and determinable consideration received, the Company allocated the remaining fixed and determinable consideration to the revenue elements based on relative fair value. As such, the Company recognized $57.3 million of license revenue and $2.1 million of deferred revenue related to the performance and transition services agreements with DSM as of December 31, 2017.

Results from the operations of Amyris Brasil are included in our Consolidated Statements of Operations for 2017, 2016 and 2015 and we have not segregated the results of operations or net assets of Amyris Brasil on our financial statements for any period presented. The disposition of the assets and liabilities of Amyris Brasil did not qualify for classification as a discontinued operation as it did not represent a strategic shift that will have a major effect on the Company’s operations and financial results.

14. Goodwill

At December 31, 2017 and December 31, 2016, the Company carried $0.6 million of goodwill on its consolidated balance sheet, in the line captioned "Other Assets".

15. Income Taxes

The components of loss before income taxes, loss from investments in affiliates and net loss attributable to noncontrolling interest are as follows:

Years Ended December 31, **(In thousands)**	2017	2016	2015
United States	$(68,777)	$(101,210)	$(188,943)
Foreign	(3,257)	4,429	(24,457)
Loss before income taxes and loss from investments in affiliates	$(72,034)	$(96,781)	$(213,400)

The components of the provision for income taxes are as follows:

Years Ended December 31, **(In thousands)**	2017	2016	2015
Current:			
Federal	$—	$—	$—
State	—	—	—
Foreign	964	553	468
Total current provision	964	553	468
Deferred:			
Federal	(669)	—	—
State	—	—	—
Foreign	—	—	—
Total deferred provision (benefit)	(669)	—	—
Total provision for income taxes	$295	$553	$468

A reconciliation between the statutory federal income tax and the Company's effective tax rates as a percentage of loss before income taxes and loss from investments in affiliates is as follows:

Years Ended December 31,	2017	2016	2015
Statutory tax rate	(34.0)%	(34.0)%	(34.0)%
State taxes, net of federal tax benefit	— %	— %	(0.3)%
Stock-based compensation	0.1 %	— %	0.1 %
Federal R&D credit	(1.0)%	(0.8)%	(0.6)%
Derivative liabilities	1.7 %	1.4 %	3.6 %
Nondeductible interest	6.2 %	5.0 %	5.5 %
Other	(0.4)%	(3.2)%	0.1 %
Foreign losses	17.6 %	0.5 %	(1.2)%

Change in U.S. federal tax rate	57.0 %	— %	— %
IRC Section 382 limitation	5.0 %	— %	— %
Change in valuation allowance	(51.9)%	31.7 %	27.1 %
Effective income tax rate	0.3 %	0.6 %	0.3 %

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Temporary differences and carryforwards that gave rise to significant portions of deferred taxes are as follows:

December 31, **(In thousands)**	2017	2016	2015
Net operating loss carryforwards	$23,877	$236,741	$207,241
Property, plant and equipment	4,195	12,917	10,519
Research and development credits	10,702	17,348	16,612
Foreign tax credit	2,669	2,452	1,899
Accruals and reserves	10,754	30,303	26,366
Stock-based compensation	11,417	17,184	19,048
Capitalized start-up costs	—	9,182	9,568
Capitalized research and development costs	34,973	65,962	63,339
Intangible and others	3,932	6,714	9,999
Total deferred tax assets	102,519	398,803	364,591
Debt discount and derivative	(6,616)	(11,936)	(4,402)
Total deferred tax liabilities	(6,616)	(11,936)	(4,402)
Net deferred tax assets prior to valuation allowance	95,903	386,867	360,189
Less: valuation allowance	(95,903)	(386,867)	(360,189)
Net deferred tax assets	$—	$—	$—

Recognition of deferred tax assets is appropriate when realization of such assets is more likely than not. Based on the weight of available evidence, especially the uncertainties surrounding the realization of deferred tax assets through future taxable income, the Company believes that it is more likely than not that the net deferred tax assets will not be fully realizable. Accordingly, the Company has provided a full valuation allowance against its net deferred tax assets as of December 31, 2017, 2016 and 2015. The valuation allowance decreased by $291.0 million during the year ended December 31, 2017 primarily due to the partial write-off of federal net operating loss (NOL) carryforwards as described below. The valuation allowance increased by $26.7 million and $47.9 million during the years ended December 31, 2016 and 2015, respectively.

On January 1, 2017, the Company adopted ASU 2016-09, which simplifies several aspects of accounting for employee share-based payment transactions, including the accounting for income taxes, forfeitures, statutory tax withholding requirements and classification in the statement of cash flows. Adoption of ASU 2016-09 did not have an impact on our consolidated balance sheet, results of operations, cash flows or statement of stockholders' deficit, because we have a full valuation allowance on our deferred tax assets. Upon adoption, the Company recognized previously unrecognized excess tax benefits using the modified retrospective transition method. The previously unrecognized excess tax effects were recorded as a deferred tax asset, which was fully offset by a valuation allowance. Without the valuation allowance, the Company's deferred tax assets would have increased by $40.1 million.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the Act) was signed into law, making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21%

effective for tax years beginning after December 31, 2017, the transition of U.S. international taxation from a worldwide tax system to a territorial system, and a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017.

The Company has calculated its best estimate of the impact of the Act in its year-end income tax provision in accordance with its understanding of the Act and guidance available as of the date of this filing. The provisional amount related to the remeasurement of certain deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future was approximately $37.7 million, with a corresponding and fully offsetting adjustment to our valuation allowance for the year ended December 31, 2017. The Company does not expect a material impact related to the one-time transition tax on the mandatory deemed repatriation of foreign earnings.

On December 22, 2017, Staff Accounting Bulletin No. 118 (SAB 118) was issued to address the application of U.S. GAAP in situations when a company does not have the necessary information available, prepared or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Act. Because the Company is still in the process of analyzing certain provisions of the Act in accordance with SAB 118, the Company has determined that the adjustment to its deferred taxes was a provisional amount and a reasonable estimate at December 31, 2017. The Act creates a new requirement that certain income (i.e., "GILTI") earned by controlled foreign corporations (CFCs) must be included currently in the gross income of the CFCs' U.S. shareholder. The Company's selection of an accounting policy with respect to the new GILTI tax rules will depend, in part, on analyzing its global income to determine whether it expects to have future U.S. inclusions in taxable income related to GILTI and, if so, what the impact is expected to be. Because whether the Company expects to have future U.S. inclusions in taxable income related to GILTI depends on not only its current structure and estimated future results of global operations, but also its intent and ability to modify its structure and/or its business, the Company is not yet able to reasonably estimate the effect of this provision of the Act. Therefore, the Company has not made any adjustments related to potential GILTI tax in its financial statements and has not made a policy decision regarding whether to record deferred taxes on GILTI.

Given that the Company is still in the transition period for the accounting for income tax effects of the Act, the current assessment on deferred tax assets is based on currently available information and guidance. If in the future any element of the tax reform changes the related accounting guidance for income tax, such change could affect the Company's income tax position, and the Company might need to adjust the provision for income taxes accordingly.

As of December 31, 2017, the Company had federal net operating loss carryforwards of $136.5 million, and state net operating loss carryforwards of $111.7 million, available to reduce future taxable income, if any. The Internal Revenue Code of 1986, as amended, imposes restrictions on the utilization of net operating losses in the event of an "ownership change" of a corporation. Accordingly, a company's ability to use net operating losses may be limited as prescribed under Internal Revenue Code Section 382 (IRC Section 382). Events that may cause limitations in the amount of the net operating losses that the Company may use in any one year include, but are not limited to, a cumulative ownership change of more than 50% over a three-year period. During the year ended December 31, 2017, the Company experienced a cumulative ownership change of greater than 50%. As such, net operating losses generated prior to that change are subject to an annual limitation on their use. Due to the limitations imposed, the Company wrote-off $438.1 million of federal NOL carryover that is expected to expire before it can be utilized. Additionally, the Company wrote-off $14.2 million of its historical federal research and development credit carryovers as a result of the limitations.

As of December 31, 2017, the Company had federal research and development credits of $0.7 million and California research and development credit carryforwards of $12.7 million.

If not utilized, the federal net operating loss carryforward will begin expiring in 2025, and the California net operating loss carryforward will begin expiring in 2028. The federal research and development credit carryforward will begin expiring in 2038 if not utilized. The California tax credits can be carried forward indefinitely.

During the year ended December 31, 2015, unrecognized tax benefits of $8.5 million were resolved in connection with the outcome of a California Supreme Court case involving another taxpayer, which concluded on a methodology that follows that certain of the Company’s net operating losses cannot be sustained. The decision had no impact on the Company’s gross deferred tax assets as presented, as the Company’s deferred tax asset for net operating losses was previously reported, net of a reserve for this same item.

A reconciliation of the beginning and ending amounts of unrecognized tax benefits is as follows:

(In thousands)	
Balance at December 31, 2014	$17,081
Decreases in tax positions for prior period	(9,404)
Increases in tax positions during current period	957
Balance at December 31, 2015	8,634
Decreases in tax positions for prior period	(314)
Increases in tax positions during current period	781
Balance at December 31, 2016	9,101
Increases in tax positions for prior period	50
Increases in tax positions during current period	8,029
Balance at December 31, 2017	$17,180

The Company’s policy is to include interest and penalties related to unrecognized tax benefits within the provision for income taxes. The Company determined that no accrual for interest and penalties was required as of December 31, 2017, 2016 or 2015.

None of the unrecognized tax benefits, if recognized, would affect the effective income tax rate for any of the above years due to the valuation allowance that currently offsets deferred tax assets. The Company does not anticipate that the total amount of unrecognized income tax benefits will significantly increase or decrease in the next 12 months.

The Company’s primary tax jurisdiction is the United States. For United States federal and state tax purposes, returns for tax years 2005 and forward remain open and subject to tax examination by the appropriate federal or state taxing authorities. Brazil tax years 2010 through the current remain open and subject to examination.

As of December 31, 2017, the U.S. Internal Revenue Service (the IRS) has completed its audit of the Company for tax year 2008 and concluded that there were no adjustments resulting from the audit. While the statutes are closed for tax year 2008, the U.S. federal tax carryforwards (net operating losses and tax credits) may be adjusted by the IRS in the year in which the carryforward is utilized.

16. Geographical Information

The chief operating decision maker is the Company's Chief Executive Officer, who makes resource allocation decisions and assesses performance based on financial information presented on a consolidated basis. There are no segment managers who are held accountable by the chief operating decision maker, or anyone else, for operations, operating results, and planning for levels or components below the consolidated unit level. Accordingly, the Company has determined that it has a single reportable segment and operating segment structure.

Revenue by geography is based on the location of the customer. The following tables set forth revenue and property, plant and equipment by geographic area:

Revenue

Years Ended December 31, (In thousands)	2017	2016	2015
United States	$94,060	$30,942	$7,122
Europe	23,823	23,612	16,049
Asia	23,290	12,055	5,907
Brazil	2,159	488	5,004
Other	113	95	71
	$143,445	$67,192	$34,153

Property, Plant and Equipment

December 31, (In thousands)	2017	2016	2015
United States	$10,357	$9,342	$18,401
Brazil	3,357	44,153	41,093
Europe	178	240	303
	$13,892	$53,735	$59,797

17. Quarterly Results of Operations Data (Unaudited)*

Years Ended December 31, (In thousands)	2017				2016
	Fourth Quarter	Third Quarter	Second Quarter	First Quarter	Fourth Quarter
Revenue					
Renewable products	$13,445	$10,996	$9,892	$8,037	$11,215
Licenses and royalties	57,703	1,022	5,497	255	252
Grants and collaborations	9,440	12,179	10,291	4,688	10,771
Total revenue	$80,588	$24,197	$25,680	$12,980	$22,238
Gross profit (loss) from product sales	$(1,584)	$(6,641)	$(7,387)	$(4,731)	$(11,290
Net income (loss)	$(1,717)	$(33,861)	$620	$(37,371)	$(48,755
Net loss attributable to Amyris, Inc. common stockholders:					
For basic loss per share	$(2,914)	$(42,819)	$(10,265)	$(37,371)	$(48,755
For diluted loss per share	$(2,914)	$(42,819)	$(10,265)	$(37,371)	$(48,755
Net loss per share attributable to common stockholders:					
Basic	$(0.06)	$(1.14)	$(0.44)	$(1.93)	$(2.67
Diluted	$(0.06)	$(1.14)	$(0.44)	$(1.93)	$(2.67
Weighted-average shares of common stock outstanding used in computing net loss per share of common stock:					
Basic	47,895,238	37,529,694	23,155,874	19,335,948	18,227,
Diluted	47,895,238	37,529,694	23,155,874	19,335,948	18,227,

* Certain amounts rounded to reconcile to year-to-date amounts previously reported in Quarterly Reports on Form 10-Q. Amounts in columns may not sum to annual amounts presented in consolidated statements of operations, due to rounding.

18. Subsequent Events

R&D Note Extension

On March 30, 2018, the Company and Total amended the R&D Note to extend the maturity from March 31, 2018 to May 31, 2018, with accrued and unpaid interest payable on March 31, 2018 and May 31, 2018.

Senior Secured Loan Facility Extension

On March 30, 2018, the Company and Stegodon amended the Senior Secured Loan Facility to extend the date for a $5.5 million principal payment from March 31, 2018 to May 31, 2018. Under the extension, the interest rate from April 1, 2018 through the date of payment for the $5.5 million principal will be the previously agreed interest rate plus 5.0%.

DSM Value Sharing Agreement Amendment

On March 30, 2018, the Company and DSM amended the Value Sharing Agreement to provide for the use of estimates in calculating quarterly royalty (previously referred to as value share) payments (subject to true-up) and clarify how the guaranteed minimum annual royalty payment for 2018 will be offset against royalty payments accruing during 2018.

Warrants Exchange and Exercise

On April 12, 2018, the Company issued warrants to purchase an aggregate of 3,616,174 shares of common stock, exercisable at a price of $7.00 per share and for a term of fifteen months, to certain holders of the May 2017 Warrants (see Note 6, “Stockholders’ Deficit”) in exchange for such holders exercising for cash their May 2017 Cash Warrants, representing an aggregate of 3,616,174 shares issued and gross proceeds to the Company of $15.9 million, and surrendering their May 2017 Dilution Warrants, which were not currently exercisable for any shares, for cancellation, pursuant to warrant exercise agreements entered into with such holders. The new warrants have substantially similar terms to the May 2017 Cash Warrants, other than the exercise price and term, except that the new warrants do not contain any non-standard anti-dilution protection and only permit “cashless” exercise after six months and only to the extent there is no effective registration statement covering the shares issuable upon exercise. In connection with the transaction, the Company agreed that it would not issue common stock or securities convertible or exercisable into

common stock, and the holders agreed to not sell any shares of common stock in excess of their pro rata share (among all holders participating in the transaction) of 30% of the daily average composite trading volume of the Company's common stock, in each case for a period of thirty trading days.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(b) Exhibits. The following exhibits are filed with this Amendment:

Exhibit No.	Description
23.02	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm
31.01	Certification of Chief Executive Officer pursuant to Securities Exchange Act Rules 13a-14(c) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.02	Certification of Chief Financial Officer pursuant to Securities Exchange Act Rules 13a-14(c) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.01 [a]	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.02 [a]	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101 [b] [c]	The following materials from this Amendment, formatted in XBRL (eXtensible Business Reporting Language): (i) the Consolidated Statements of Operations; (ii) the Consolidated Balance Sheets; (iii) the Consolidated Statements of Comprehensive Income; (iv) the Consolidated Statements of Convertible Preferred Stock, Redeemable Noncontrolling Interest and Equity (Deficit); (v) the Consolidated Statements of Cash Flows; and (vi) Notes to Consolidated Financial Statements

[a] This certification shall not be deemed “filed” for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act.

[b] These Interactive Data Files are not deemed filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act, are not deemed filed for purposes of Section 18 of the Exchange Act and are not otherwise subject to liability under these sections.

[c] Previously filed as like-numbered exhibit to the Form 10-K and incorporated by reference herein.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AMYRIS, INC.

By: /s/ Kathleen Valiasek
Kathleen Valiasek
Chief Financial Officer
April 24, 2018